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CHRISTIAN THOUGHT.

LECTURES AND PAPERS ON

PHILOSOPHY,
CHRISTIAN EVIDENCE,
BIBLICAL ELUCIDATION.

NINTH SERIES.

EDITED BY
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CHRISTIAN THOUGHT.

REASON AND FAITH: THEIR CLAIMS AND CONFLICTS.

[Delivered before the American Institute of Christian Philosophy, June 2d, 1891.]

BY J. H. RYLANCE, D.D., RECTOR OF ST. MARK'S, N. Y.

"REASON and faith," says an old English writer,* "resemble the two sons of the patriarch. Reason is the first-born, but faith inherits the blessing." Quaintly expressed, after the manner of the time, but the statement betrays a purely artificial conception of reason and of faith, and of the relations they sustain to each other in the moral economy of life; faith having no such pre-eminence over reason as is here claimed for it, while no such arbitrary partiality is shown toward it by the Moral Governor of the world as seems to be implied in the pithy comparison of the old Puritan. Neither reason nor faith inherits any blessedness which properly belongs to the other. Perceiving that, clearly—reason and faith being looked upon as organic powers in the constitution of human nature, each sustaining its own office, and doing its own work in the moral education of men—we are so far prepared to judge the claims of reason and of faith impartially.

But that is a task for which few men are as yet competent. The majority of the men who take interest in these questions become partisans of this cause, or of that; votaries of reason, or "defenders of faith"; the just claims of each often suffering in the strife. We have, on the one hand, the common type of the Christian apologist, who, in asserting the claims of faith, commonly starts with assumptions which require to be established by reason before they can be admitted as grounds for inferences

* Nathaniel Culverwell, 1650.

of the sort which apologists generally proceed to draw from them. But, claiming to be privileged with special light, or relying on an authority to which reason is bound to submit, as he holds, this kind of apologist disdainfully refuses to have his postulates controverted. The more fanatical of these "defenders of faith" go to great lengths, at times, in such direction; being guilty of grave offences against sound sense, speaking profanely of some of God's best gifts to men. "Human nature is carnal: man's judgment is perverted: his affections are radically depraved: no trust is to be reposed in any of the faculties or intuitions of his nature,"—that is the style of talk we are commonly treated to by a class of theologians. The best endeavors of men to know the truth, or to do the right, are therefore to be looked upon with suspicion, a more reliable guide than reason being lifted to supremacy by these zealots. Which guide is Faith, they tell us; faith being, for many of them, a vague subjective emotion merely; while for others it is reliance upon some external authority. For multitudes that authority is the Bible; for others it is the Church. Or the authority inheres more immediately in a person: in a Pope, as the appointed organ of infallibility, in matters of faith; or in "my priest," who, as a sort of little conduit, distributes to me such measure of the living water as he deems good for me; or in "my preacher," who generally condenses all the infallibilities of books, and of churches, and of priests into himself!

In this way, from the theological side, faith is made to seem at enmity with reason, wherever religious truth is concerned. In the affairs of common life, Reason may be followed and be trusted by the devout and undevout alike. But she is not to gather up an inference, or to trace an analogy, which might tempt her upon forbidden ground; upon ground, that is, which is considered as belonging exclusively to Faith. From that sphere Reason would be repelled as an intruder, or, at most, called in to ratify conclusions dictated by Faith.

Such teaching is very common and very popular in the "believing world"; such notions seem to be in the ascendant in all our orthodox schools and churches; the pitiful results being very obvious, especially among the weaker disciples of such

schools. Whenever a reason is asked of these "brethren" "of the hope that is in them," instead of giving the best they can "with meekness and fear," or of modestly referring the questioner on to those better able to answer him, the question is very commonly resented as an intrusion upon the forbidden ground I have just defined; or the "disciple" flings back an anathema. "What!" says the startled "believer,"—the question affecting the validity of some article of belief or other—"do you not know that your inquiry touches matters of faith? What have you to do with reasoning, then, about such things?" And that sort of answer is deemed pertinent and sufficient, very generally, not by the ignorant and superstitious only, but by men of penetration and good judgment in other walks of life. "On such things I never allow myself to reason," said a great legal luminary of New York some time since, parrying a difficulty started by an eminent scientist then on a visit to this country. Now, there are circumstances in which such an evasion would be allowable, no doubt; for a man may have answers satisfactory to himself on matters of a difficult nature affecting his faith as a Christian, but which he may be unable, or unwilling, to defend in formal argument. He may have reasoned a subject thoroughly out, but it does not follow that he must go over all the evidence afresh, whenever and by whomsoever it may be demanded of him. Or a man may have taken refuge from harassing doubts in the general consensus of the Christian world, or he may have found rest in the convergence of various lines of evidence favorable to Christian faith, or in the effects of religious influence upon his own heart and conscience, and these may be allowed to suffice for the man, without his joining a perpetual debating society, where every little caviller has the right to catechise him about his faith. But if the gentleman who waived the scientist aside with the pious reply just given meant to say, that all reasoning upon things taught in the name of faith is to be resented as intrusive, or that there are some matters so sacred that all inquiry into them is to be regarded as sinful, or if he meant to assert his belief in some authority above reason, as having the right to settle such matters dogmatically, in which settlement men are to acquiesce without question or misgiving,

why, then, the answer to the scientist was not only evasive, but silly, spite of its piety. For there is no such authority lodged anywhere, to which men may resort for infallible answers to difficult questions, or for the verifying of claims put forth as true in this world of conflicting opinions, thus saving men the pain of seeking truth for themselves. Men have felt such pain very acutely sometimes, and have turned imploringly to this oracle or to that, where doubt might be dissipated, it was hoped, and where the intellect might be satisfied, and the conscience assured. But peace is not to be so found, except of a stupid kind. Is not the Bible given to do those very things for us, however? some man might ask. To which one might answer, that the Bible may render such service to those who accept it passively; but what about those who start farther back? asking,—What is the Bible? and, Whence did it get its authority to dictate conclusions to men? Such men are not to be answered by simply saying, "The Bible is the Word of God," for that is the very claim to be decided, which decision can only be reached through a process of investigation into the evidence alleged in support of the divine authority of the Book. That is conceded by the most cautious of our safe-going theologians, when they tell us so naively that "the office of Reason is to certify the claims of divine Revelation, and to interpret the message which it brings to men." That bit of comfort used to be graciously conceded to believers in reason by orthodox "Professors," as if that were a trifling matter to grant. Not only do such certifying and interpreting constitute a life-work full of difficulty to the best equipped, however, but the point to be noted is this, that such concession to reason really makes reason the arbiter in all religious questions. So too of the Church, to which others betake themselves for peace. There are millions of men and women who accept its councils and creeds and decrees as final; all reasoning as to the reliability of such expedients being deemed impertinent. But the Church, it should be borne in mind, is an historic institution, whose credentials to teach must be authenticated by evidence which Reason must weigh and approve, before men can be summoned to sit at her feet in unquestioning silence.

All that may seem strange as coming from one who seems to

have some respect for faith lying in the background of his thoughts; but I am simply amazed that any thinking man should count it strange. For with what are our Christian libraries filled? With catalogues, simply, of dogmas, and doctrines and decrees, into the validity of which we are forbidden to inquire? Nay; but with stores of evidence, and of argument, and of criticism very largely, which a learned and laborious Reason has gathered in confirmation and in elucidation of Christian credenda. And to these, as I understand her, the Church refers the inquirer for proof of her mission and authority, and for evidence authenticating the Bible as a revelation from God. Yes, even the Latin Church, most pronounced in her condemnation of Reason, filling her disciples with a flurry of fear on the mere mention of the word,—even she is driven in the last resort to fall back on the very attestations she affects to contemn. As witness the work of her scholars, and critics, and apologists, of which class of craftsmen "Rome" has many; who, in their way, have been as busy and as laborious as any in vindicating by vast learning, and by a far-reaching research, those foundations of faith which lie back of, or beneath, all assumed infallibilities, and of all dogmatic decrees; no less an authority than the late Cardinal Newman having told us, that even "the acts and words" of the sacred pontiff "must be carefully scrutinized and weighed, before we can accept them as infallible." But scrutinizing and weighing are exercises of the reason, I take it; and upon reason, therefore, the author of "The Grammar of Assent" being witness, dogma inevitably depends.

What I am contending for just here, then, not as a concession of authority of any sort, but as an organic necessity of the human mind, is reluctantly asserted by those most jealous of reason in matters of religion. All men, of any tolerable degree of sagacity, holding whatever creed they may happen to hold, are compelled to admit in the long run, that the claims of reason are first and fundamental. "You must philosophize," said Aristotle, "and if any say you must not philosophize, still, in saying that, he doth philosophize;" which, put into the speech of to-day, amounts to this: You reason when you deny reason, or even when you deem its exercise a sin. For you are moved by some reason, or

by reasons surely, though ill-defined to yourself, perhaps, thus to deny. Men of intellectual acuteness, even while holding strongly to Christian faith, have seen and allowed this. "Reason is the only faculty we have," said the author of the "Analogy," "wherewith to judge of anything, even Revelation itself." While Locke has a touch of humor in his statement of the truth I am contending for. "Those who are for laying aside the use of reason in matters pertaining to revelation," said the author of the "Essay on the Human Understanding," "resemble one who should put out his eyes to make use of a telescope!"

But that image of a telescope reminds me that the statement of the case in behalf of Reason needs qualifying, to prevent inferences being drawn from what has been said of vaster dimensions than could be justified; or which would exclude all possible use for faith in the moral and spiritual education of men. I have seemed all along, perhaps, to be driving full upon that conclusion. Nay, I may be taken to have plainly asserted it, in saying that Reason is the arbiter of truths which faith is to rest on. But the truths guaranteed by Reason may have much more of meaning in them than reason can exhaust; or they may admit of a much wider application than reason can compass. If good ground can be shown, for instance, that some men have been moved by special inspiration from heaven to tell us of things beyond the reach of Reason, credibility may be justly claimed for them on such ground. Or, to take the all-comprehending test case, if Reason can prove that a special messenger once came from God clothed with a divine authority, and endowed with a supernatural wisdom and power, then would faith be justified in accepting things from the lips of such a messenger surpassing the powers of reason to have discovered, or fully to comprehend when declared. It would then become reasonable, in other words, to admit conclusions which before were unreasonable; being careful to mark the exact logical force of the word unreasonable. Not clothing it with a positive force, as is so often carelessly done; but with a negative force simply; as meaning, not that which is contrary to reason, but only above reason; unreasonable meaning, when strictly taken, that which is not reasonable. But the non-reasonableness of a matter may rest on either of two grounds:

either on the ground of some necessary contradiction between the matter submitted for belief, and some law or principle which is absolutely certain; or the non-reasonableness may be purely temporal, or contingent, resting on ignorance only, which ignorance being dissipated, that which was before unreasonable becomes reasonable. Need I remind you, my friends, how abundantly the history of Science confirms this position? Now, I venture to affirm, that there is no sane "believer" in the compass of the Christian world, who is not ready to admit that, wherever absolute, necessary contradiction can be shown to exist between any "article" of his belief and any undoubtable law or principle certified by sense, or by science, that there all talk about faith would be an insufferable absurdity. But then there is still left a vast amount of room in God's universe for a legitimate exercise of faith; even in the deepest mysteries of which religion tells us.

Let those of my hearers, who may have been haunted with the suspicion that all was being conceded that the boldest rationalism could demand, take breath just here, therefore, and the hope may begin to gather itself into consistency, that there is something still to be said for faith. Most of what I have said, indeed, has been mainly preliminary to that end.

I have been trying to vindicate the rights of reason against those who, in the interests of religion, as they think, are in the habit of doing those rights defiance; creating an impression in the minds of their disciples, that there is some sort of necessary antagonism between reason and faith; asserting the inference, very obvious to them, that the latter can only survive in its purity and fervor, when the former is deprived of all liberty to utter itself freely. This temper of our theological orthodoxy constitutes the most dangerous delusion of the time, I believe. I know something of the temptations that abound, for men of a devout temperament and disposition to seek a refuge from the prevailing intellectual distraction; some good Christian people being in a state of lively alarm just now, from one of those periodical crusades against all faith and piety which come and go in the lapsing of the centuries. The predominant tendencies of thought and research have been setting for some time in a direc-

tion foreign, at least, to that by which men have hitherto attained to conclusions friendly to faith. Science has been chiefly busy with material organisms, and with the laws and forces by some assumed to be inherently of them; Philosophy, as distinct from science, having lost in comparison much of the interest with which it once inspired men. From the marvellous discoveries made in the prosecution of such aims, Science has naturally enough become a little conceited; speaking no longer in her old, modest, cautious way, but in a dogmatic, intolerant, oracular way; showing herself particularly haughty towards religion. Not on the ground that the case has been heard and decided against religion, but mainly on the ground of guesses, tentative hypotheses, theories, based upon scattered facts, which the fashionable fanaticism deals with in a wildly illogical way. The spirit of the inductive philosophy, indeed, touching matters of the kind I am dealing with, seems almost to have forsaken us. What Butler complained of in the temper of the unbelief of his day, and which he did so much to correct, has reappeared in our own, but from somewhat different occasions. "It has come to pass, I know not how," says that great thinker and dialectician, "that Christianity is not so much a subject of inquiry, but that it is now at length discovered to be fictitious," that being just the temper that is felt by many among us to be so offensive in those who assail Christianity from a scientific standpoint to-day. Scarcely is there a truth that the Christian world has held sacred that is not rudely denied. Scarcely a feeling it has cherished as holy which is not insulted. God, as a person, has been relegated out of the order and government of the universe, matter being boldly credited with "the promise and potency of every form and quality of life." We need not marvel, therefore, that men of spiritual sensibility and experience have been startled and shocked by such extravagances; knowing somewhat of the impotence of science to show anything to give them countenance. For it is not of any solid achievement of science the men I speak of are afraid, or that they dislike. But it is the covert sneer, or the still more offensive "pity" that is affected towards believers in religion, with the reckless speculation, and the bigoted bubblement of little coteries of neophytes, mainly, which do so much to drive

men of faith into extreme attitudes towards a good deal of "modern thought," or which tempt them to seek a refuge from the senseless noise that prevails, in some sort of retreat where doubt and discussion are denied entrance. That is just why we see such conflicting phenomena in the struggles of opinion and feeling about us. On the one hand, a boastful and clamorous infidelity; on the other, a wounded, shrinking, and too oft terrified Faith, which, if repose is to be found nowhere else, is resolved to seek it at the foot of the altar.

But these are unworthy ways by which to escape the dangers that threaten Christian truth. That truth must be vindicated by men of better build, of loftier courage, and of more reliable resources, than the men who shelter themselves 'neath the skirts of a priest. For the faith of Christ can be vindicated, I believe, on the field of evidence and argument. Let not the most despairing doubt it. But faith as rationally defined, and as capable of being admitted among the ruling forces of a healthy moral life.

Our popular theologies are responsible for a vast amount of sheer fanaticism touching this matter of Faith, which would seem, as set forth by some, to be a despotic power in the soul, unenlightened by reason, and unrestrained by law. But Almighty God can no more be the author of confusion in the spiritual realm than in the realm of nature. Faith is one member only in the organism of faculties, capacities and affections which constitute a complete humanity, filling its own place, and doing its own work in harmony with all the rest. Man cannot live by sense alone, or by the intellect alone, or by faith alone. The constitution of his nature, and the necessities of his manifold life, demand the concurrent and sympathetic exercise of all. And for this, it might seem, the Almighty has hedged us about with difficulties, as incentives to an inquisitive Reason on the one hand,—if one may venture a teleological guess—and as tests of a reverent Faith on the other; the great end of the disciplinary process being what Butler calls "an enlightened obedience to the will of God." The task of determining the just limits or prerogatives of the one or of the other may be difficult sometimes; but by that we are taught the need that exists for conscientiousness, and circumspection, and for moral purity, and

susceptibility, lest Reason should be inflated by a foolish pride, or lest Faith should degenerate to credulity. Christian character approaches its highest perfection when both reason and faith contribute each in its proper quota of help to its education, combining the manhood of the intellect with the childhood of the heart. We need not become blasphemers in the name of Reason, nor cowards in the name of Faith.

The technical distinctions of theologians as to different kinds of faith are vain inventions. The differences between a cold, commonplace faith, and a faith heroic, are owing very much to differences in the nature of the truths apprehended; somewhat to differences in constitutional capacity for intense conviction or feeling of any sort. While very much depends also upon the question as to how truly we may be said to believe the truths we formally assent to. In one man, faith may assume the form of mere opinion—if we may so far degrade the word; while in another, it may gather into the consistency of a conviction; while in a third, it may kindle into rapturous love; distinctively Christian faith having always a good deal of feeling in it; the intellectual element seeming sometimes wholly lost, in the trust and the homage of the heart for Him whom Christianity sets forth as the great object of faith; Christ being the centre upon which all Christian truth converges.

Christian Faith then is not the idle or simply sentimental thing that some men so superciliously take it to be, but is as rational a power in its place, as any that have to do with the conduct of moral life.

The man who should resolve to submit his thought and action only to the requirements of sense, or to the tests of science, or to the exactions of logical demonstration, would speedily put himself out of gear with every form and function of life around him. All high enterprises, all deep confidences, all courage, and ambition, and hope, would die without faith. For knowledge is personal, and, therefore, of limited range; so that if we are to see the world beyond our own narrow bounds, and to put ourselves into practical relations with it, we must see it with others' eyes, so to speak, and feel it through the sensibilities of others; implicitly accepting testimony to a multitude of facts which have

no existence for us without faith. Nay, the very sternest Positivist, who professes to abjure faith, is busy in collecting and classifying his phenomena in serene reliance upon faith! Upon faith in the postulates and laws of the higher reason; "those universal and necessary convictions" which have their evidence in themselves; such spontaneous, intuitive trust being an organic necessity of our nature; preceding sense, and verifying its reports, and sanctioning its conclusions; testing the discoveries of the scientist, and guiding the processes of the logician, and underlying the very axioms of the mathematician!

With all our reverence for Reason, then, we may not discard Faith. Both are of divine appointment; to be honored and trusted, therefore, in their respective spheres. The question is not as the vulgarer sort of infidelity commonly puts it, between faith *versus* sense, or demonstration; but the question is, What kind and amount of evidence will warrant and require our trust in the truths of Religion? And when the controversy between Faith and unbelief assumes that shape, Faith is ready with her witnesses, with no fear of an adverse issue. Bearing in mind always, that while the evidence for Christianity may be sufficient, it may not be exhaustive of all difficulty, nor always satisfactory even to a "believer." But we do not accept Christianity because of its difficulties; but in spite of them. There may arise, indeed, occasions in the mental struggles of an intrepid inquirer, when both Reason and Faith are brought to a stand, so to speak; when a man can neither affirm nor deny as to some point at issue. But a sensible man, when he has thus reached the end of his tether, will neither resent the limitations which the Creator has imposed upon him, nor say in a fit of anger—Because I cannot know everything, I will believe nothing.

It may seem a hard and complicate task to get at what Christian people call "a knowledge of the truth," with the entanglements and the liabilities round a man which in following the light of Reason he is sure to encounter. "Is it not easier," some timid, shrinking soul may say, "to follow the advice of my preacher, or of my priest; who tells me it is safer to believe than to reason?" But believe what? The whole task is before a man when once that question confronts him. No; we are not to

be nursed into a healthy and well-developed manhood by any such process; there is no such "short-cut" to "a knowledge of the truth" available. Reason may thus be put to sleep, but never satisfied. There are risks in seeking truth for one's self, but they are not very serious with a right bent of purpose in us. Nor is the task of finding half as difficult as it may seem to the timid. For it is not *all* truth we are called to know before doubt can be laid, but only enough of truth to give a Christ-ward inspiration and direction to the affections and life. "The evidence for religion," says Bishop Butler, "is fully sufficient for all the purposes of probation, how far soever it is from being satisfactory as to the purposes of curiosity." Or as Pascal puts substantially the same truth, "There is light enough for those whose sincere wish is to see, and darkness enough to confound those of an opposite disposition." The folly of some who really desire to believe, but who fail to find quiet of mind, is in virtually stipulating that every difficulty that troubles them shall be solved, and every mystery made plain, before they will obey the call of God. But wise men are forward to confess, that there are many things in the sum of Christian credenda beyond their power to explain. Enough for them that the unknown can never invalidate the known. To men of wide outlook and deep insight, things insoluble seldom prove "occasions of stumbling," remembering the limited range of the strongest human faculties, and the mists that so often envelop the higher altitudes of truth. Happily for all of us prone to doubt, faith in Jesus Christ is a matter of very much narrower dimensions than faith in all the theologies, or than the faith required by any one "system" of theology. It is a blessed thing for a man to be able to say of crowds of claims put forth in the names of our various orthodoxies, "About those things I care little. For me they are among the mutabilities, things of uncertain obligation." One may hold them, or dismiss them, as pleases his fancy or his taste, or, according to the measure of respect he may deem it proper to manifest for opinions, inferences, logical deductions, speculations, devout conceits, which have come down embalmed in the reverence of ages, or with the names of "great men" tacked to them; but holding them or dismissing them, he is

little better, and no worse, as a Christian. How much soever they may affect his "standing" with the churches, they will count for very little when the final estimate is passed upon him.

Reason and Faith, then, these two, let us revere them both as divine; listening wisely, prayerfully, and patiently to these two voices that speak to us of earthly and of heavenly things; and we may find that all seeming discord dies, the two testimonies blending sweetly into one. Or we may never know the perfect concord here, since here we "know but in part"; and we "prophecy in part"; but "when that which is perfect is come, then that which is in part shall be done away." Meanwhile, let us use all the faculties God has given us, whether of head or of heart, fearlessly, but humbly, assured that we shall find the great solution at last. Something may be done to such end even now, by large inquiry, by disciplined thought, by opening the mind to all revelations, come whence, or through whatever avenues, they may. But much more, perhaps, by a sweet simplicity, by tenderness, by devoutness, and by a child-like following of the light we have, till God shall make it more.

EVOLUTION AND CHRISTIANITY.

[Delivered before the American Institute of Christian Philosophy, May 5th, 1891.]

By Prof. James H. Hyslop, Columbia College, N. Y.

MILTON in one of his finest flights of poetic ecstasy breaks out into something like an apostrophe, when he says:

> How charming is divine philosophy!
> Not harsh and crabbed as dull fools suppose;
> But musical as is Apollo's lute,
> And a perpetual feast of nectar'd sweets,
> Where no crude surfeit reigns.

We are not assured at this point whether the emphasis lay upon the "divine" or upon the "philosophy"; but what Milton felt and believed on the matter is best explained in a passage of Paradise Lost, where he invokes the Muse to inspire him for his work. The sense in which he subordinated philosophy to the divine is quite apparent there. He says:

> What in me is dark,
> Illumine; what is low, raise and support;
> That to the height of this great argument
> I may assert eternal Providence,
> And justify the ways of God to men.

Milton's own statement of his task involves the assumption that there are certain irregularities and contradictions in life which require removal and explanation. He has a philosophic scheme to propose or defend, and he states it with an implication that there is a vexatious problem for the Christian philosopher to solve, and that his whole business is one of removing difficulties from the way of established, or of normal and spontaneous, belief. This is, undoubtedly, the conception representative of the pervading thought of his time, and it has succeeded in dominating the thought of the two subsequent centuries. The age has been one of apologetics, less than of development. Its doctrine was supposed to be settled once for all, and the task of the

philosopher was to defend it. "Divine philosophy" was a definite body of ideas which were to be vindicated against the ever fluctuating conceptions of reason and experience. If some consistent, or even pleasing, scheme could be produced which smoothed the difficulties of faith, it was hailed with delight by all who felt obliged to choose between what seemed a fixed rock for anchorage and what threatened to set them adrift upon a wide and shoreless ocean. Human inertia and conservatism incline men to assume a fixed point for their beliefs, as they influence them to remain in their homes or their country. Change is not suited to the genius of the majority. But without dwelling upon the manifold causes that have induced the race to assign some limitations to the fluctuations of its beliefs, as far as was possible, we must be content with the fact that for some reason what has been called Christianity for so many centuries has, in each succeeding age, been assumed to be a definite body of particular truths which could suffer no change without threatening the general structure with ruin, and hence the multiplied attempts of the centuries, since its origin, have been a series of prolonged attempts to adjust its ideas to the growing mass of general knowledge, ever appearing to conflict with the heritage of tradition.

Milton's method of "justifying the ways of God to men" is the type of that phase of thought which has in nearly all ages triumphed, for a time at least, over the few and scattered efforts of science or philosophy; and perhaps it might have succeeded equally well for the present and the future, except for the fact that the repeated conquests of science have established a sort of tradition in favor of scientific method which at least partly counteracts the presumptions so generally felt by men in favor of a poetic and idealistic system of truths. This method is an elaborated system of ideals which, by the mere force of overwhelming interest felt in them, can suppress the unwelcome realities of a severe scientific truth and govern the mind more by its hopes than by its experience of facts. Such is "Paradise Lost" and "Paradise Regained." It is not to them that we owe the suggestion of so simple an ideal of life and providential government as mediæval thought has represented them. Dante had, work-

ing upon the same materials, formed an equally imaginative, and equally powerful, notion of the world for influencing the hopes and fears of men; only he had adjusted it to the Ptolemaic system of astronomy, and its potency in the moral world declined with the crumbling of its basis, while Milton had adapted his poetic scheme more closely to the Copernican system, although not building his structure upon it. But, more than all else, he is the epic poet of Protestantism, and the unsurpassed sublimity of his imagery and poetic power conferred upon him an authority for deciding the ideals of all who in any way assimilated his systematic representation of the world. Like Dante's, his elaborated scheme is profoundly sensuous, but it is refined and ennobled by as profound a spiritualism, by a Protestant attachment to liberty, and by an avowed purpose to adjust the system to the model of Scripture. His genius was great enough to create such a system from its own energies. But joining to a fertile imagination the eloquence of a statesman and philosopher, he taxed all the resources of the apocalypse and the prophets for poetic thought to transfigure the severer outlines of his theological system, and so produced a work which is equally the admiration of priest and of peasant. Both its religion and its poetry—and the two are identical in this case—satisfied every order of mind except the sceptic, and even the sceptic felt the magic spell of its musical numbers and rhythm, the melody of its verses, the literary power which its genius reflected, and condoned its faults, for those merits he could not deny. But what his work did was to systematize and consolidate common belief, giving it form and consistency. It did for Protestantism what Dante did for Catholicism. But it was less mystical, less allegorical, and less complicated with specific physical speculations than the "Inferno" and the "Paradiso." Hence it not only reflected the conceptions of common minds, but its vast literary power and charm availed to give those ideas a compactness which the least shock from scientific iconoclasm made very dangerous to its integrity. Indeed, the first breath of that spirit was as disintegrating to its sensuous theological system as was Copernican astronomy to the equally sensuous conceptions of Dante and the papacy. "Paradise Lost" and "Regained" have had more to do to produce and sustain in

modern times that poetic and imaginative conception of Christianity which science so easily disturbs than any other single stroke of genius. Mr. Huxley evidently felt this to be true in choosing Milton as the representative of it when delivering his lectures in New York some years ago on the doctrine of evolution, after Prof. Marsh's discovery of certain fossil equine types in the western territories. A very different writer, Prof. Peabody, recently in the *Andover Review* has taken a similar view of the case and conceives it possible that we should treat Milton and "Paradise Lost" as Plato would have treated Homer and Iliad in his ideal republic. He says: "In sweep and meridian height of imagination, in awful grandeur, in oases of majestic sweetness and beauty, in full command of the entire gamut of epic song, the "Paradise Lost" is as transcendent in poetic power as it is unique in its theme, and in all coming time it will be read, as we read it now, only with healthful amazement and harmless delight. But who can estimate its baleful influence in the past? It has furnished the popular mind with its appalling and terrific demonology. It has kept alive superstitions that have thrown a veil over the face of heaven. It has made the belief of large portions of the English-speaking world not pure theism, but a dualism, with two antagonistic gods striving for mastery, and with the scales of victory almost equally balanced." Prof. Peabody might have added that this was only a part of its influence. It is true that the original biblical accounts from which Milton drew represent an equally vast and simple poetic scheme. But they are not only more than this at the same time, but are also unelaborated into anything like a fixed definite cosmological system, while the profounder moral background is almost wholly forgotten or neglected in prevalent literary reconstructions of them. Hence we may take Miltonic conceptions as the type of ideas with which the scientist has to contend when engaging in the controversy between science and religion.

In the mind of the average theologian Christianity is a cosmology as well as a religious doctrine, and with the popular mind it is much more a philosophic scheme than a moral system, and hence in the course of its development all its elements became so thoroughly articulated that the disturbance of any one

of them produced the same effect as removing the key-stone from an arch. Now evolution touches this cosmological scheme, the Miltonic and poetic conception of the universe and of man, at a point which involves a modification of the whole of it, as conceived by the popular imagination. The present younger generation can scarcely realize what a moral shock was felt when Darwin first promulgated his doctrine in 1859. The controversy which it at once aroused took on the form of a life and death struggle between science and religion, or more particularly between evolution and Christianity. I can assume that all are familiar with the details of this history, and hence I do not require to enter into them. But allusion must be made to it just for the sake of contrasting that spirit with the prevalent mental tendency of the present, and also in order to be reminded of those conceptions between which the bitter controversy was carried on. Nothing could have offended man's pride and vanity more than the lowly ancestry which Darwin assigned him. But even this might have been overcome, had it not been for the dissolving influence of such a belief upon a coherent system of doctrines made to hinge upon the idea of man's origin. The consequence was that a larger mass of controversial literature, turning upon this question, sprang up than perhaps any other three decades of history has produced. In fact the field of ethics has been so affected by it that the renaissance in that subject has no parallel in the past, and perhaps as many volumes upon that subject have been produced during the thirty years following 1859, as were produced on the same subject during the last 3,000 years. This is a truly astonishing result. The remark is, perhaps, none the less true of the scientific and theological literature bearing upon evolution and the relation between it and religion. But not being familiar with its history I am not prepared to assert so much of it. Besides, all we require to know of it is the general feeling which it reflected, that science had to be crushed in the one respect of its adherence to so revolutionary a doctrine as Darwinism. But within a decade all this feeling has been reversed. Theologians vie with each other in announcing their adhesion to evolution and in reconciling the doctrine with Christianity. The whole intellectual movement of the day,

on the side of religion, and perhaps on the side of science also, is a mediating one. The more uncompromising opponent of religion cannot but stand amazed at the apparent insolence with which religious minds, after having combined all their energies to refute science, immediately turn around, when its victory is won, and claim alliance with it. It is to many one of the most amusing spectacles which man's intellectual history shows. In one moment we find him attacking science as an irreconcilable enemy of Christianity and religion, and the next appealing to it as a proof of traditional beliefs, as if a method which can prove some things could not disprove others. It is this fact which strikes scientists as so ludicrous. If science be accepted as authority in one case, its judgment is likely to be equally authoritative in other cases. Its evidence in negative instances may be as valid as in the positive, and we cannot bow to its authority in one without paying some deference to the possibilities of the other. It is strange that those who are seeking its support for traditional dogmas and beliefs do not perceive this fact. If its significance could be once realized, the limitations of both the scientific and the religious consciousness would be better understood. It means much more than appears at first sight. When the two mental attitudes were assumed by all parties to be irreconcilably opposed to each other, the issue of a conflict was clear. One side or the other was to be conquered. But when the possibility of reconciliation is urged by religious thinkers, it does not so frequently occur to them that some concessions upon one side or the other are inevitable. Now that it has been the religious mind which first made offers of peace, it is quite as evident that the concessions must come from the side of theology, and all that science can be asked to forego is the feeling of opposition, while it must be allowed to retain the material character of its conclusions. After all, this is equal to a defeat of theology and the world will so regard it, as it is doing quite universally. In this age we cannot begin a mediation between science and religion without yielding many of the conclusions which have been so tenaciously held by the past. This is practically admitting an authority for science which subordinates all religious consciousness to it, and I think all men who are not blind to the in-

tellectual tendencies of the day, and who really understand what scientific method is, would be alive to this fact and put themselves upon ground whose security is not exposed to the fluctuations of speculative beliefs. As it is, however, all these enthusiastic attempts at reconciliation only result in pseudo-science and pseudo-religion.

But now, to come down to the definite question, What is the relation between evolution and Christianity? In occidental thought this question is practically the same as that which seeks to know the relation between science and religion, since the same fundamental postulates underlie both forms of thought. It is true that the conceptions, "science" and "religion," are much more comprehensive than those of evolution and Christianity, since evolution is concerned with but one phase of scientific method, and Christianity is but one form of religion, with the differential characteristic of its Christology. But, nevertheless, in spite of this difference, the main points of contention between the two pairs of ideas are the same and do not turn upon the mere fact of broader or narrower meaning. This is especially true when we come to consider the vast scheme of cosmology, on the one hand, and the equally vast system of philosophic and scientific postulates with which Christianity has identified itself. Hence in determining any relation between evolution and Christianity we are immediately involved in the whole question of the relation between science and religion. But what is there new to be said upon that question? Has the issue of so many centuries of controversy made it any easier to answer it? Moreover, can a short paper or article upon it solve the problem? Has the Miltonic conception of Christianity, as I have denominated a certain cosmology and sensuous theology, sustained itself so well against scientific progress that there only remains a small task to complete the reconstruction of Christianity against the destructive influences of scepticism? Hardly any one can have the audacity to assume or to assert that this is the case. Very few in reality realize the magnitude of the problem. The reason for this I shall proceed to show.

The first obligation of every man who discusses this problem is to show what he means by "evolution" and "Christianity."

It is absurd to talk about the relations between them, or even to assume that they are either in harmony or in conflict, until we have first decided what they are. I cannot in this paper undertake to discuss this question. I am concerned only to utter a word of warning against all those questions begging discussions which take for granted that "evolution" and "Christianity" are perfectly clear and definite conceptions. Scarcely any two terms in the language are less defined and accurate in their import. Until their import is made clear every man who affirms a conflict between them, or assumes their mutual consistency with each other, is simply begging the question. This is an easy path to victory on either side, and yet each combatant takes it upon himself to decide the terms of his own controversy in a way that forecasts the result as surely as the conclusion is drawn from the premises. Let us take a few illustrations. I shall use the term evolution myself to denote the order and relations of phenomena historically conditioned.

"A religious creed," says Herbert Spencer, "is definable as an *a priori* theory of the universe." Assuming this definition for a moment, it is easy to discredit religion merely by implying its inherent opposition to *a posteriori* methods which are presumably the only accredited sources of knowledge in such matters. If any man has once for all decided that empirical methods are the only reliable sources of truth, it is sufficient to decide his way of thinking toward any other method to call it *a priori*. A man's dislike for such a method is certain to create a bias against any system supposed to be in any way connected with it. It will be very plain how such a definition prejudges the whole question, because it introduces a characteristic which is not at all necessary to the real problem. Even if a religious creed be an *a priori* theory of the universe there is nothing to condemn it except the assumption that only some other kind of theory could be true. The whole force of the argument lies in the confidence that the definition appeals to a postulate which nobody can question. Besides it does not take account of the possibility that such a theory might have an *a priori* side in connection with an *a posteriori*, and so not be wholly condemnable merely because *a priori* and *a posteriori* were not identical conceptions. However this is not the main weakness of such a view.

One wonders what authority Mr. Spencer has for calling a religious creed a "theory of the universe," no matter whether it be *a priori* or *a posteriori*. He defines it as if it could not be, or were not, a great deal more at the same time. Hence he does not see that, in refuting it as a theory of the universe, he is not refuting it in other respects. Hence he is exposed to the commission of two fallacies in the same breath, that of *non sequitur* and a *petitio principii*. In pretending to define it he makes the subject and predicate convertible terms, and at once leaves the impression that we exclude every other characteristic from religious creeds as unessential. Now we know that theoretical considerations about the universe have been the smallest part of religious creeds, especially as practically applied, and hence nothing is done to sustain a conflict between them and science farther than in the one point which is common to them with science, and that might perhaps be admitted without affecting other issues, unless they are conditioned upon the truth of the cosmological elements, which is not always, and perhaps never, in reality, the case.

But there is a more important case of subreption involved in Mr. Spencer's view. When saying that a religious creed is an *a priori* theory of the universe, he is making an assertion which may be proved as a fact, but which he intends shall be taken to be a necessary fact, because the definition of a thing intends to indicate what a thing must be, if it is to exist under that name at all. Hence the conception conveys an idea which can, perhaps, be shown to represent facts, but which at the same time covers the notion of a necessary truth. From this it is easy to conclude that when a scientific theory has discredited the religious view that there is no possibility of a reconstruction. It follows from the fact, that a religious creed may be more than a theory of the universe, that it may not necessarily be the latter only, although it may be so in actual history, and hence it is no refutation of it to point out what it is or has been in its unessential features. Perhaps nothing can be made out historically with more satisfaction than the assertion that religious creeds have been connected with, often beginning with, a theory of the universe, or even founded upon it. But it is surreptitiously

inferred or implied that this must be so, and although such a conclusion comes with very bad grace from the admirers of the inductive method, who tell us with so much gusto that we can never get beyond the facts of experience, they are not exempt from the common fallacy of human nature which is to infer what must be from what is. Now there is no necessity that a religious creed shall involve a theory of the universe, any more than any other creed. It is true that the human mind can hardly escape forming some cosmic conceptions, whatever set of facts it endeavors to explain or understand; for they are all so interrelated and connected that when we begin to investigate any group of phenomena we are soon led from one thing to another, until presently we draw up with a cosmology. But it is quite possible to isolate our investigations and conceptions so as to entertain a creed of some kind without postulating any cosmological conditions of it. Now, in so far as a religious creed contains moral elements, it is not necessarily a theory of the universe, although when examined in its foundations it may issue in such a theory. But this issue is not the exclusive characteristic of religious creeds. Moral and political creeds can be pushed to the same result. Yet no one thinks for a moment of defining a political creed as a theory of the universe. The temptation to so define a religious creed arose exclusively from the fact that historically it is generally found to be intimately connected with such a scheme. If, therefore, we can either call it *a priori* and prejudice it before the worshipper of inductive methods, or insinuate the unknown nature of the universe, we have an excellent presumption against religion, and whatever is proved to militate against all forms of religious creeds is an *a fortiori* argument against Christianity. But we see what a *petitio principii* is involved in supposing that a religious creed is nothing more than a theory of the universe, and so we demand at the outset that the disputants take a fresh start at the problem, and define it more accurately.

We see in Mr. Spencer's definition, however, the influence of Miltonic conceptions; not because they are exclusively Miltonic, but because they are so well adapted to impress the mind in early life and remain as the criteria by which to measure the

ideas associated with them. Spencer has not gotten out of the poet conception of Christianity, and only one aspect of it at that, and when he wishes to depreciate it he has only to compare a newly gained position with his older view, in order to make religion appear erroneous in the light of what he chooses to call science. We accord much of an apology for Mr. Spencer, as he alone is not to blame for this view. He must share the fault, if fault it be, with the theological mind, which, if it has not explicitly defined religious creeds as necessarily involving a cosmological theory, has quite generally assumed it, and set itself up in opposition to any competitor of its presuppositions. The scientist found cosmogonies and theories of the nature and destiny of things already in the field when he began his investigations, and he found them generally identified with much else beside. That he should mistake them for the whole of religion is quite natural, although it often enough occurs that the exigencies of scientific controversy made the wish the father to the thought. But, nevertheless, his assumptions only reflected the general consciousness of the time, so that whatever reproach attaches to the limitation of religious creeds to theories of the universe must be shared by his opponents. It was a necessary consequence of such a mistake that the doctrine of evolution should come into irreconcilable conflict with the cosmogony constructed under the name of Christianity, because the six-day interpretation of Genesis cannot be compatible with the long periods required by evolution, nor can the usual chronology of 6,000 years for the earth's existence be reconciled with the claims asserted upon the data of geology. Hence the moment we find the conclusions of science accredited in preference to others, the mainworks of religion or Christianity are assumed to be carried; and so they have been carried, if any definite cosmogony of the latter be necessary and happens to be contradicted by facts or such a view of them as reason seems obliged by the nature of the case to take. The whole conflict has come about by too much reliance upon Miltonic conceptions, which for epic effect had to depict the origin and the end of things. The scientist, and the evolutionist especially, is occupied almost exclusively with problems that push back into questions of origin, and as he

is a poor respecter of poetic conceptions, his conclusions may play havoc with the splendid illusions of poets like Milton and Dante. But he is, nevertheless, liable to a similar illusion, and that is, in taking a cosmological scheme, whether poetical or philosophic, as the essential and primary element of a religious creed. Spencer and Darwin seem never to get any different conception of it than this. Moral and spiritual insight seem quite foreign to their experience.

But a like error can be pointed out among the defenders of Christianity, both in regard to the nature of their own system, and in regard to the process of evolution. The most that many have known about them is that a body of doctrines constituted one, and that the other was in some way opposed to it. With the evolutionist the Christian apologist has quite generally assumed that Christianity was a perfectly definite system of beliefs, and works of evidences in this and the last century have been mainly defences of its cosmological suppositions, as if nothing else were essential to it. The consequence of this assumption was to throw out of sight the fundamental principle and method of its founder and to make Christianity a philosophy rather than a religion. Undoubtedly the influence of mediæval thought was wholly in this direction, and gave a cohesiveness to the system that made its resistance to the dissolving influence of evolution all the more determined. But the main illusion was in exalting a purely secondary element of it into undue importance, when the least advance of well-certified knowledge was so likely to disturb the integrity of all that imagination had supplied in addition to a perfectly legitimate outline. It is one thing to postulate a theistic basis for explaining the phenomena of nature, and it is quite a distinct matter to describe in detail the process involved in a theistic scheme. The Miltonic system gave quite a beautiful picture of it, and the ordinary mind has usually created some such an image of the providential government when left to fill in the outline which the general laws of thought formed for it. But an air-castle of this kind is too fragile to stand the tests imposed upon more substantial structures, and hence at the first breath of the remorseless spirit of science, its stability and equilibrium are disturbed. But as-

suming a perfect definite conception of Christianity, such as the formulator of creeds is disposed to consider it, it is easy to see how it came into conflict with evolution and it is as easy to see how triumphant evolution was sure to be, when assuming that it was an equally definite metaphysical theory. But what is evolution? Is it necessarily a metaphysical hypothesis? Undoubtedly it must involve a cosmology, and this cosmology may, in the facts which it establishes, conflict very seriously and fatally with the imaginary order hitherto identified with Christianity. But is there any absolute necessity that it shall postulate an impersonal force or cause at the basis of its cosmological order, rather than a personal agent? If not, why talk about the antagonism between the two theories? What ground have we to suppose that an evolutionistic order must be impersonal? And yet, unless that assumption be made by both parties to the dispute, there is no reason whatever to talk about either harmony or conflict between them. The whole problem is decided by the assumptions we make about its ultimate data and their order. The assumption usually determinative of the whole controversy is that of the antithesis between the ideas of nature and of God, which is simply the impersonal character of all natural forces and that conception of God, which, if He be assumed to exist, is that of an "idle and absentee God, sitting on the outside of the universe, seeing it go." But to this point I shall return again. At present it suffices to know that the whole relation of evolution to Christianity must be decided by the solution of that antithesis, and until it is seriously undertaken, all drawn-out controversies about these two indefinite conceptions are so much wasted effort. Both of them are too comprehensive for any dogmatic deductions whatever about their final and absolute relation to each other. If this is not apparent, reflect upon the various denominations that call themselves Christian with their various views of what their creed is, and also perhaps the equally various conceptions of what evolution is. Nor will it do to assert that there is a common set of beliefs at the basis of all the differences in the various sects, and that these common beliefs are uniformly opposed to the scientific theory of evolution. For besides the purely humanitarian and social or moral conception

of Christianity maintained by some classes, there is the view that evolution is the process of which the cause is a personal deity, and this again brings us to a point where discussion is useless, because the two fields are separate territories, and the cultivators of them may each go his own way without any collision with his neighbor. The more the conceptions are analyzed, therefore, the less reason appears for controversy. But at the same time this fact is equally conclusive for the position that when the two conflict in certain particulars, science must be accorded a superior authority, or at least will be accorded it by all who are familiar with her conquests from the time of Copernicus to Darwin.

But, after all, are these enforced concessions to science any real loss to Christianity? Many who are forced to make them will feel that they are a loss, and may be tempted to rush away to the opposite extreme. This is a frequent occurrence of those who have to pass that severe, I might say awful, struggle with doubt. I might quote instances to show this at some length. Only a few days ago I received a letter from a western student, just commencing his college course, but beginning to feel the terrible pulse of scepticism. The beautiful visions of childhood were beginning to vanish in darkness, and the appalling shadows of everlasting night to brood over all his hopes. Science and reason were gradually dissolving the structures which his dogmatic teachers built up for his boyhood's imagination, and the intellectual suffering which the loss of his ideals was occasioning led him to say to me that many times he wished that he had not been born. I may repeat that my own experience has been much the same, and I could mention more than one individual who could tell a like story. Read Carlisle's "Everlasting No," "The Centre of Indifference," and "The Everlasting Yea," for a more remarkable instance of it. But why is this mental distress so prevalent? Undoubtedly science is one of the causes of it. But a greater cause is the dissolution of that vast philosophic scheme which Miltonic and Dantean imaginations have stamped upon the intellectual character of the past, and identified too closely with what they called "Christianity." But we ask again, Is it a loss? Has Christianity no more vitality then than a phi-

losopher's vision? Why does the touch of science seem to set the whole superstructure to tottering?

The answer to this question brings us again to the vague sense in which the term Christianity is used by friend and foe alike. One would suppose that it meant something like the life and teachings of its founder, and that we could form a tolerably clear notion of it, if we went to the Sermon on the Mount. But to look at some of the creeds we should find it precisely what Mr. Spencer has defined religion to be; namely, "an *a priori* theory of the universe," and of much else besides that is imaginary. As often used it is identified with every speculation about the cosmological, philosophical, literary and historical questions of both the Old and New Testaments. Here are "Christians" frightened about the cosmogony of Genesis, the story of the fall, the Mosaic authorship of the Pentateuch, the authenticity of the canon, the infallibility of its record, the literalness of its inspiration, the integrity of prophecy, and a score of other theories that were as far from the mind of Christ as is the doctrine of evolution itself. Christianity ought to mean the doctrine of Christ. But who would recognize Him in the speculative systems of Augustine, Thomas Aquinas, ecumenical councils, and Westminster assemblies? I will not deny the value or the necessity of such schemes. But I do deny the right to discuss them with that passionate dogmatism that turns us away from the true genius of Christianity to worship at the altar of what may be very bad philosophy after all. It is these speculative encumbrances that science is removing, and although the shock is a trying one to the ordinary mind which finds it hard to adjust its emotions to a broken image, the testimony of the ages will be that the process is a purifying one. This process is the removal of excrescences which have attached themselves to the primitive doctrine and absorbed the life that might have had a better development. The elimination of foreign matter which science and evolution are teaching us to make in regard to Christianity is not a loss, but a gain, though for the time being we may not see the vast importance of what the sifting process has left.

The great difficulty is that what has been called "Christianity" for so many centuries has degenerated into a philosophy,

and lost about all that it had of religion at the outset, and we are now being rudely reminded by science of the arbitrary additions which other than religious impulses have made to the original doctrine. Christianity is not necessarily a philosophy. It is not necessarily even theism. Both of these may be a natural consequence of it. We may be led into such systems by contemplating the content and meaning of Christianity. A systematic statement and explanation of all that is implied, assumed or postulated by the Christian consciousness, may be very desirable. But neither a philosophy nor a system of theism is at all necessary to Christianity, as an integral element of a man's consciousness of his duty to God and his fellow creatures. You may say that a man cannot feel any duty to his Creator until he has assumed or admitted the existence of such a being. This is true with one very important qualification, which is that man cannot apply any moral predicates to his Creator until he has first felt them in himself. This is so true that Mr. Martineau reverses the usual order of stating the relation between ethics and religion, by maintaining that the former conditions the latter. We are generally told that ethics have a religious basis, but here we are told that religion has its basis in ethics, and this must be the case, if the moral consciousness ever rises above obedience from mere fear to that of love and respect for something other than sheer physical force. The history of religious conceptions and their development bears out this view of the matter. Besides it is quite as true that no amount of proof and conviction about the abstract truth of religion necessarily issues in the consciousness of one's obligation to obey its mandates. Everyone is familiar with these facts. But it is not so common to draw the necessary inference from them ; which is, that the important fact is not to get a theory of religion, but to get the religious consciousness. This once obtained, we may get along without the theory, although I grant the value of it for certain purposes. But those purposes are not the production of any adequate insight into the truth of things, or of any resolution to live according to that insight. No man can study the life, character and teachings of the founder of Christianity without being thoroughly impressed with this fact. We have only to

try imagining Him engaged in proving or asserting some cosmogony, the Mosaic authorship of the Pentateuch and like trivial matters, to realize the enormous difference between the exalted majesty of His moral insight into truth independent of tradition and Pharisaical theories, and the mole-eyed narrowness of philosophers and "logic choppers" who place all the importance upon their rational systems, which in nine cases out of ten eliminate the very factor that can give them value. What Christ taught was insight, not a theory. He did what He could to awaken that insight, but He never tried to do it by any philosophic scheme of the world or of religion. To think of Him as doing so is to depreciate Him, and His method. Nor is it a reply to this and a justification of philosophy as superior in its method, and prior in its application as a pedagogical instrument, to the one which we are identifying with Christianity, to say that in all that Christ did and said He assumed the existence of God and other truths as the condition of His formulated principles; for this is only partly true, and is partly false. In the first place, He insisted upon His principles as if every individual could see their truth and without supposing for a moment that this insight was conditioned by the prior acceptance of some abstract philosophic doctrine. In the second place, He did assume—whether consciously or unconsciously it is not necessary to decide—the existence of God, which it may be the function of the philosophic genius to try to prove. But therein He showed His better understanding both of human nature and of the importance of His ideas. For, as the author of "Ecce Homo" remarks, men who, like Carlyle and Mazzini, go about the world using the name of God without giving any reasons for it, discover and impress upon others more truths, and especially more moral ideas, than all that philosophic systems have ever accomplished. Christ used fundamental principles, He did not prove them. He passed His judgment upon things by a surer and more indubitable method than ratiocination. It may be of great value to prove such assumptions, but it is not the principal question. Unfortunately subsequent ages, instead of having insight, or experiencing in the same ardent enthusiasm the religious consciousness of Christ, have gone on trying to prove something, often merely incidental

to the main idea, and often positively opposed to it as were the dogmatic and authoritative inventions of the Pharisees, or adding vast accretions of theosophy, theology, philosophy, cosmology, etc., until Christ Himself would not recognize a vestige of His own simple Gospel, or spiritual insight as the one condition of a Christian and Christianity. The Sermon on the Mount contains no cosmological, or even theistic, conditions to its realization in the consciousness of man. The summary of the whole duty of man in love to God and to one's neighbor is not dependent upon the authority of Moses and the prophets, nor even upon the inspiration of the speaker, but upon the insight which every moral consciousness is capable of possessing. A man who feels that once will not trouble himself about the "isms" that have usurped the name of Christianity, nor about any of the beliefs that must be surrendered to evolution, science, and rationalism generally. His mind rests in that serene, cloudless land of light and joy where the intellectual distress, caused by philosophic illusions, never darkens the vision.

"To consecrate and diffuse under the name of 'Christianity,'" says Mr. Martineau, "a theory of the world's economy thus made up of illusions from obsolete stages of civilization, immense resources, material and moral, are expended, with effect no less deplorable in the province of religion than would be in that of science, hierarchies and missions for propagating the Ptolemaic astronomy, and inculcating the rules of necromancy and exorcism. The spreading alienation of the intellectual classes of European society from Christendom, and the detention of the rest in their spiritual culture at a level not much above that of the Salvation Army, are social phenomena which ought to bring home a very solemn appeal to the conscience of stationary churches. For their long arrear of debt to the intelligence of mankind they adroitly seek to make amends by elaborate beauty of ritual art. The apology soothes for a time; but it will not last forever." To Mr. Martineau's language I may add the question: How many reflect upon the far-reaching significance of the statement in the Apocalypse about the celestial city, or the Kingdom of God? "And I saw no temple therein; for the Lord God Almighty and the Lamb are the temple thereof."

But this is only testimony to the extent to which philosophic speculations have intrenched upon and supplanted the primitive conception of Christianity, and it is no wonder that evolution with its vast array of facts and well-supported conclusions sets the fiduciaries of a spurious Christianity to trembling for their security. It will inevitably dissolve many a belief which tradition has connected with the name of the Christian religion, and we may as well make up our minds to that fact. But it will not touch the revelations of the moral consciousness, which are merely the insight of man into his own duties. The reason for confidence in their integrity and proof against the dissolving influence of evolutionistic doctrine is a very simple, but conclusive, one. Those revelations are the product of evolution itself, and that theory cannot repudiate its own creations. The moral consciousness of man is a fact, not a theory to explain certain facts, and hence whatever evolution may do to modify our theories about things, it can never alter the facts or their value for us. It will dissipate and ought to dissipate the mythological mists that hover about the deeper light of moral and religious insight; but it will not and cannot eliminate that insight itself, because the moral consciousness is not a philosophic fancy. Ethical and religious theories may be this, but a feeling of duty is not. It is a fact, and the most inexpugnable of all facts when it once emerges into consciousness. He who falls back upon that ground for his fundamental principle will never have to struggle with the revolutionary influence of evolution. On the contrary, he may use its facts and conclusions as a sort of Bible or authority for influencing the life of others. He can welcome it as a new Gospel of truth. In fact no illustration could be more important than this one to show the extent to which modern thought is disposed to deny that the canon of truth is closed by any fiat of God or man in the past. The only final fact we know is the limitation of human consciousness. But even this is sufficiently plastic to guarantee an indefinite development, while the insight which it may possess may be a perpetual source of those fixed truths which know no change or shadow of turning. The Christianity which consists in this, that is, in the immediate moral consciousness which was a consuming fire in its founder, has no need of extrinsic and

perishable helps to support its revelations. Every other elaborated scheme of it must struggle with that intellectual nightmare which is the most distressing feature of modern mental history. I know nothing better than the language of Carlyle upon this subject. It is one of the best passages in the "Sartor Resartus." "Meanwhile what are antiquated myth-uses to me? Or is the God present, felt in my own heart, a thing which Herr von Voltaire will dispute out of me; or dispute into me? To the 'Worship of Sorrow' ascribe what origin and genesis thou pleasest, has not that worship originated and been generated; is it not here? Feel it in thy heart, and then say whether it be of God! This is belief; all else is opinion,—for which latter whoso will let him worry and be worried."

Christianity then is insight. We often call it faith, but that word has lost its meaning from its contact with the morbid speculations of people who never had any of it, and so is too often taken as a substitute for the paralysis of reason, or as a vehement resolution which antagonizes the light of reason by a stubborn *credo quia impossibile*, because it is afraid of the truth. Its original meaning is wholly forgotten. It is too much complicated with intellectual assent to propositions that are nothing but abstract philosophy, and so appears as an arbitrary authority to force the submission of reason where confidence in one's own mental powers ought to be the only guide. But could we realize its old meaning of fidelity of will to an object of moral insight, we might be free from such perplexities as the revelations of science are constantly occasioning. But to avoid the controversies incident to the abuses of language connected with the term, I shall call Christianity moral and religious insight, which every one must get for himself the best way he can. Logic and philosophy will not create it in him, and even seldom awaken it in him. But when it is once there, no theory of the universe has anything to do with it, any more than the color of an object has anything to do with its weight. Religion is not a provable belief in theism, the existence of the soul and a hereafter: it is not a theory, or even a belief of the incarnation, of inspiration, of justification by faith, of probation here or hereafter. It may be well to have reasoned opinions on these subjects. But our reasonings on them

can only be tentative, and are constantly exposed to a conflict with new facts such as science may produce. But important as they may be, they are no constitutive element whatever of Christianity, and may well forfeit our allegiance without impairing the integrity of that insight which has no substitute for its power, and in default of which philosophy is a poor guide. In fact a true philosophy is nothing more than an analysis of its revelations. Even the truths of evolution so far as they have a moral content are its product. The insight must come first, and the theory afterward, if there be then any need for the theory at all. But religion is not in any case a theory of the universe, or of anything else. It is "the right attitude of the finite soul to the infinite, the straining of the vision from within the shadows to the far-off light, the devotion of goodness immature and precarious towards the perfect and the eternal." Such an insight requires no illumination from Miltonic imagery to support it. It may be a problem to define what it is and how to obtain it. But as philosophy cannot create it, and can only analyze it when given, we need not be concerned with such a problem. We can only be interested in indicating the ground upon which the Christian may stand without being compelled to resist the terrible incursions of evolution upon his beliefs. No doubt many will exclaim that so vague and undefined a power as moral insight can hardly furnish the certitude for which the mind so earnestly longs, and that it can neither be an authority for others, nor reveal the truths which we value as the condition of those it does discover. "The flash of vision which bursts into the mind may itself be a light of heaven; but it can only illuminate the scene on which it falls; and while it pierces every recess, it does but touch with glory what already lies around, the thoughts and admirations which furnish the chamber of the soul, and the far-stretching ideals which spread as the night field beyond the windows of her home." It is thus but a contingency that it shall ever awaken into activity, and then its power is limited to the consciousness of the subject so fortunate as to possess it.

Such an assumption is meant to accuse this insight with a liability to illusion, and so to imply its need of some rational and absolute support, such as proof of its authority. But such an

accusation labors under an illusion itself. Philosophic schemes, Miltonic or otherwise, assume as much insight of a kind as is here claimed for the moral consciousness of any or every rational individual. It requires just as much insight, in my opinion much more, to see and understand a theory of the universe, or of history, as it does to have a revelation of one's duties to his fellow creatures and to his Maker. You cannot discredit consciousness in its primary deliverances without producing an *a fortiori* argument to impeach its cobweb spinning in its philosophic systems. But I am not solicitous to set up a doctrine of insight in place of traditional views. I use the term only as a convenience for indicating that primitive and original Christianity relied upon a man's seeing the truth directly and not upon proving it as an inference from some *a priori* theory of the universe. To this view we have yet to come before we can escape the destructive influence of evolution. When we do reach such a position, we shall not talk about either the conflict or the harmony of evolution and Christianity. The only reconciliation between them is that attempted by minds which have a wrong idea of both of them. If we could dispel our prejudices and ignore what imprudent controversialists tell us about their relation, we should never suspect an antagonism, any more than the race would think of a conflict between the uniformity of sequence in night and day and the motion of the solar system through space. It is not to be denied that a conflict exists between the various theories of evolution and Christianity, and it will continue so until we have the courage to accept the authority of science against mere dreaming. We have to learn that truth is as sacred and authoritative in one field as in another. Hence, if we do not blindly follow the spirit which, on both sides of the controversy, insists upon a dogmatic philosophy, or a developed scheme of the universe, instead of moral insight into the significance of facts for our lives and duties, we shall not be tempted to prejudice our study of the problem by assuming any more of a conflict between the vast number of facts and laws revealed to us by evolution and the moral consciousness embodied in the plain teachings of Christ, than between the *pons asinorum* of Euclid and the law of proportional combinations in chemistry.

Otherwise we are destined to have no end of trouble, with the prospect of landing where we cannot appreciate the moral life at all, simply because the surrender to a presumably antagonistic theory cuts off the approach to the inner sanctuary of human experience. In many respects what has been falsely called "Christianity" is not reconcilable with evolution, nor with any other scientific theory. The only way to bring them into harmony is a frank concession of the ideas that are either no longer defensible, or, even if not false, are not proved. I do not mean that their falsity follows from their not being proved, but only that they cannot be asserted dogmatically until they are so proved, however true they may actually be. But as point after point has been carried by science it is useless to go on asserting claims for certain ideas that the plainest insight can tell us are not essential, however valuable they may be in other than moral relations. Discretion, here at least, is the better part of valor, and the true religious consciousness accordingly may gain by a frank surrender to science. Until such a course is taken the conflicts and struggles between them are like those of the heroes in Valhalla, perpetually hewing down shadows, which immediately start up again to renew their ceaseless and bloodless contest.

It is necessary to emphasize this way of looking at the matter, because there is much to be done in order to prevent evolution from actually producing the very consequences which the religious mind charges to it. The reason for this is that mankind are governed more by association than by strict logic, or their reasoning and their conduct are based as much upon their ideas of things as upon a true understanding of them. If evolution is thought to oppose Christianity, whether it does or not in reality, the moment that facts make its acceptance irresistible, at that moment Christianity is discredited, and the practical consequences to morals are the same as if the opposition were a real one. This feeling of their antagonism is due, as I have remarked, to the long standing antithesis between the ideas of nature and of God. The solution of this problem I cannot undertake at present. I can only state where the key to it is to be found and the source from which men's intellectual diffi-

culties have come. This is the philosophic side of the question, and while we must not suppose that the solution of it conditions any of the revelations of the moral insight, of which I have spoken, it is well to remind those who are troubled with philosophic difficulties about evolution and Christianity, that they must first reconstruct their conception and assumption of the relation between the ideas of nature and God, before entering into discussions of any kind. The antithesis between the natural and the divine has been the common heritage of the race from the time that man had to distinguish between the regular occurrence of physical phenomena and the capricious interferences of some imaginary demon or spirit in the order of his experience. Fate was the first conception of nature ; as soon as the idea of an invariable law arose, and as it increased the range of its application to phenomena, the supernatural interference of the divine retreated in the same proportion, until we know how difficult it is, after the triumphs of science, to obtain any foothold whatever for the conception of the divine. Here then it rests for some mind to reconstruct the notion of the relation between the natural and the divine, and to so impress it upon the common consciousness, that it will not suggest the antithesis it invariably represents at present. That task is the largest one ever undertaken by philosophy, because it has to undo so much that past thought has been based upon and has to confront one of the most fundamental notions of common sense, and vanquish it. But until it is done we shall have conflicts and controversies between science and religion, evolution and Christianity, without end, and practical life will have to pay the penalty of them. I cannot indicate how the result shall be obtained without consuming time and space not at my disposal. But I may suggest that we shall be forced to modify our conception of "nature" as much as our anthropomorphic ideas of God. The antithesis between them, as now conceived, makes each of them appear as the shadow of the other, or perhaps better as the dualism of the Greek fate and intelligence, of the Christian God and Satan, and of matter and mind in philosophy, when no other relation is defensible than that of phenomenon and its cause. This last conception is not so far from the position of common sense as it

may seem. If we interrogate common consciousness more closely, we shall find it nearer the truth than the personified abstractions of philosophy. But the danger even in such a reconstruction is that one system of philosophy will be substituted for another, and that the superior value of insight will be lost in the process. But if we must have philosophy instead of insight, it must begin with a solution of the antithesis between the ideas of nature and of God, and remove the assumption which makes history one long array of equally absurd controversies.

KANT'S PHILOSOPHY AND THE NEO-KANTIAN THEOLOGY.

[Read before the American Institute of Philosophy, March 3d, 1891.]

By Prof. A. B. Curtis, Tuft's College, Mass.

"WHAT can we know? What ought we to do? What may we hope?" These are the questions that Kant set himself to solve. If it was Hume that awoke him from his dogmatic slumbers, it was a greater than Hume that first made him a philosopher by involving him in that "certain perplexity from which he sought to free himself." It was the stimulus that comes from religion and from God that made Kant so profoundly in earnest in regard to the answers men ought to give to these three questions. They were already old when he set about answering them. Many a man, grown weary of thinking, while still in his teens, had settled down to grossest realism, maintaining that all knowledge and all the instructions of religion were once for all "given" and needed no further investigation. These men were, for the most part, wedded to the Kirk and to the grovelling ideals of the existent social order. Another class, speculating in the vein of Hume, had turned skeptic first in religion and afterwards in the grounds and value of all knowledge. It was then that Kant set his mighty intellect to work to demolish the credo in which each of these classes had come to rest. His influence was most powerful in its own day, nor has it ceased in our own. Kant's "speculative endowment" and "ethical enthusiasm" pre-

vented his being able to accept the solutions of these problems as they came down from the past. Every belief must show him its right to exist or cease to be his belief. Is there any God but nature? Are man's actions mechanical or free? Is this life the end of conscious existence? These questions must be looked at in the calm light of reason, regardless of what we hope or what we fear, and in utter defiance of whatever solution may have come down to us attested by many and holy witnesses in the past. Skeptical as these questions, entered upon with such a method, may appear, no man was more richly endowed with a firm faith than was Kant. He was naturally critical, but, in the modern corrupted sense in which the word "skeptic" is used, Kant was no skeptic. He aimed not only to weigh the evidence on both sides, but to give to the world new principles on the basis of which the old questions would receive new moral and religious import. The critical philosophy, in the hands of Kant and his followers, demolished the idols of the age, but it also revealed to the world new forms of truth and beauty. Kant never gave up faith in the conviction that reason could somehow solve the questions which it was able to raise. To discover the foundations of ethics and religion was the ultimate goal toward which he aimed. But he soon saw that to answer these questions he must begin at the very foundation of all knowledge. How far is knowledge possible? This was the question now before him. But who would help him to solve it? The dogmatist and the skeptic seemed alike to rest in unreasoned conviction. The one was as superficial in denying God, freedom, and immortality, as the other was in stoutly affirming them. Could all this endless quibble be forever ended by the discovery of some rational principle that would strike at the very root of the matter? Kant believed that it could. But if we would have a sure foundation for our edifice, we must not begin by either affirming or denying, dogmatically, the reality of anything supersensible. We must the rather begin with a discussion of sensible reality. What is it that constitutes the strength and stability of any portion of our knowledge? Of the truths of everyday life, the facts of experience, no man is skeptical, no matter how doubtful he may be of the existence of anything supersensi-

ble. Let us search out the secret of the reality of the sensible; then, perhaps, we may the more easily discover whether at all or how far the world, that is not sensible, may be worthy of our credence.

What is experience, and how do we get knowledge by means of it? That what is known is given us by experience ready-made we cannot for a moment admit. Experience is something more than a passive apprehension of the phenomenal world. The senses can give us sense-impressions of what appears in the outer world, but they cannot classify those impressions. They may record the visible and aural impressions of a bell, but they cannot remember past sensations, compare the present with them, and name the object a bell. They cannot give the idea of permanence of existence. What now appears they record; but they know no before and after. In other words, sense-impressions are wholly individual. But a fact is something more than an individual apprehension. When we say "man is mortal," our proposition asserts something more than that which may, at a stated time, appear to the senses. There is here an invariable and necessary connection. In every fact, then, we find something universal, which the senses could not of themselves give to us. The particular fact of a man dead is given to us by the senses, and without the senses the occurrence is nothing for us, still the law, "man is mortal," is not so given. How can our minds impose this law upon nature? Only by the supposition, it would seem, that nature is not something existing apart from all conscious beings, but something that exists only for such beings. The mind does not create the external world, but it "constitutes" it for us. The world which we know is made by the action of our mind upon the material furnished by the senses, and what it may be apart from us, we cannot conjecture. Moreover, as our knowledge is not a medley of varied and isolate sense-impressions, but a veritable Kosmos, we must look upon experience as something made for us by the imposition upon our sense-gained material of laws which belong to the very nature of mind as such.

How, now, shall we further explain this order of our knowledge? The intellect must be endowed with certain functions of

thought or categories which take hold of the material given by the senses, and form out of them that world of experience which is known to all. It is not possible for the mature mind to know a sensation pure and simple. For in every such impression thought is also present, placing a certain meaning upon it and giving it a fixed place somewhere in the cycle of experience. It is because the mind is self-conscious or active that the world is a knowable world. Take away space and time, unity, substance, and cause, and the world is for us a zero because unthinkable. Perhaps it could exist for us as mere sensation, but as we have seen, it is by the action of thought alone that these sensations are rescued from a mere medley of chaotic impressions.

Having discovered that the mind is active in knowing, and that it operates in accordance with certain laws of its own nature, are we any nearer an answer to our original question, the existence of supersensible realities?

The supersensible world is a world outside of space and time. And at once the question arises, How can we know such a world? *Ex hypothesi* it is beyond the reach of our fundamental categories. Does soul exist in very truth, or is it but an inference? How can we know that God is, if, by our definition of Him, He exists independently of space and time? Can there be aught real, if we exclude the possibility of being in space or lasting through time? Waiving for a moment the direct answer of yes or no, let us assume the existence of a supersensible world, and proceed to define it, and set the limits to its knowability. It can have no magnitude, for magnitude implies both space and time, unit added to unit in time. For the same reason it can have no degree, for this implies a certain amount of intensity at a certain when as opposed to other intensities in other whens. It cannot be conceived as substance, for substance is unthinkable, except as it is extended. It cannot be conceived as either cause or effect, for a cause cannot exist without its effect. The effect, however, follows the cause in time. From these considerations it would seem that the supersensible cannot be known in the sense in which we speak of knowing anything by experience. What conclusion then shall we draw? Shall we affirm that for us the knowable is exhausted by the world of sense, and that the

supersensible is unknowable, or even such that we cannot know that it is able to exist? The discussion as conducted thus far will warrant no such affirmation. All we can rightly assert is this: that supersensible realities are not capable of being "schematized," to use Kant's phrase, that is, we cannot apply to them the categories of quantity, quality, relation and modality, and, therefore, we can never make those realities objects of sensible experience.

Our answer to the question thus far has been only negative. But it has not been altogether useless. It has revealed to us that the categories of thought have no application to the supersensible world, if such world exist. Farther than this it has revealed nothing.

A few words corrective of current misapprehensions will now aid us in our further discussion. We are wont to speak of God as a Cause or as the great First Cause, and yet by definition God is supersensible. Evidently there is contradiction or confusion here somewhere. For to make God a cause is to link Him with the sensible, it is to condition His existence by means of the effect of that cause, and as the effect is in space, and lasts through time, we have imposed the categories upon God, or, in other words, put Him in bondage to sense. So, also, we cannot say that the soul is a cause in the sense in which one phenomenon is the cause or occasion of another. For cause, as we know it, can operate only where space and time exist as conditions, but the soul is by definition a supersensible reality. In our effort thus far, we have been attempting to arrive at a definition of supersensible reality, regardless of the reasons we may have for the existence of such reality.

Our next effort will be to discover whether there are sufficient reasons for positing the existence of the supersensible, and in what way the supersensible is related to the phenomenal. In this part of the critique, Kant is polemical. He aims to demolish the existing rational psychologies, cosmologies and theologies of his day. Our reason, says Kant, desires to get beyond the particular and the individual. It is a lower class of intelligence that is satisfied with special cases and examples. Reason is not satisfied with the particular causal condition of a certain

phenomenon, but desires to know all the conditions. But this totality of conditions is an idea of the mind, it is an abstraction that cannot be made manifest to the senses. It is not a perception, but a conception. We see in this, as Mr. F. E. Abbott has pointed out in his "Scientific Theism," a resurrection of the old controversy of the Nominalists and Realists. Kant points out that we must be very careful not to identify an idea of reason with our knowledge of an actual object corresponding to it. This error is made, however, by all those who maintain that we can know the supersensible world in the same way that we know the phenomenal world. Rational psychology falls into manifest paralogism, because assuming that the soul is noumenal it defines it as a substance, simple, self-identical and related to objects in space and time.

But as we have already seen, the idea of substance is unthinkable without the categories, hence rational psychology makes the soul both sensible and supersensible. The rational cosmology plunges us into the antinomies of the reason. A creation of speculative thought is identified with an object of experience. The world had a beginning. The world had no beginning. Either of these propositions can be demonstrated according as we assume that the world, as we experience it, is or is not identical with the world as we think it. As a fact of experience the world is a segment, bounded by time and shut up in space. As an idea of reason it is a totality, unconditioned and undivided, in other words, without beginning in time or limitation in space. When once we stop to consider that our world as an unconditioned totality is not an object of experience, we begin to realize that both thesis and antithesis are false, or, at any rate, that our reasoning is sophistical. So, too, the question, Is there a First Cause? may be answered by yes or no, according as we have the phenomenal or noumenal world in mind.

The ontological argument, adduced by rational theology, as Kant points out, falls into a similar confusion, in that it identifies the self of experience with the supersensible self. I can conceive a most perfect Being (*ens realissimum*). One attribute of such perfect being is existence, therefore the most perfect Being exists. By this argument, as Kant indicates, we predicate of our

supersensible Being all those attributes of personality, causation, rationality and power which exist in us by reason of the categories, and which have for us no validity aside from our spacial and temporal limitations.

Now, as matter of fact, God, freedom and immortality were profound realities to Kant, and if we would know the basis on which he held to them, we must proceed to study his teachings with regard to the relations of theoretical and practical reason. Stirling tells us that one of Kant's stories was the following: In the Congo region there is a very peculiar tree. Bark and leaves are both poison, but their poison is of so different a nature that the bark is an exact antidote for the poison of the leaves, and the leaves are an antidote for the poison of the bark. Where Kant obtained the story and how true it is, are unknown, but we may affirm that Kant's theoretical reason is rank poison, but its antidote is to be found in the practical reason, which gives back to philosophy, or rather gives back to the moral and religious nature of man, all that the critical philosophy had so ruthlessly taken away.

Let us proceed then to discover in what way the practical reason is the antidote of the theoretical. To show that free causation may be reconciled with physical causation is the problem. Assail the universal validity of natural causation, we must not. For upon this experience is built, and in it all science is grounded. Every change has its cause. Every act of man has its cause just as assuredly as does the change in natural phenomena. An act without its motive is an absurdity; the "liberty of indifference" is no liberty at all, but by its very nature would, if it existed, overthrow all experience and all science. But a careful examination discloses the fact that the acts of a man differ widely from those of a brute. With the latter the desire of the moment is operative, whereas man does not always follow his immediate desires, but may set up an ideal of reason with its goal in the far future and act in accordance with that idea. A law of freedom is here implied: can it be sustained and at the same time reconciled to our ideas of physical causation?

Reason's ideal is assuredly out of the chain of natural causation. Its real objective point is hedged about by other surround-

ings (space) and other causes (time). Can such causation co-exist with natural causation? Every cause known to us through experience is itself the effect of some other cause or causes, and these the effects of others working singly or together, and so on, for an indefinite time. But the question arises, May there not be a cause of a different kind, a cause which cannot be made an object of experience, and so a cause to explain which it is not necessary to posit an antecedent cause of which it is the effect? Such a cause, as supersensible, can never become an object of experience, but it can, Kant assures us, be irresistibly proved to be real. Such a cause might initiate a series of effects to appear in the sensible world without itself having been so initiated. This form of causation does not militate against natural causation, but co-operates with it. The man who lives the life of the spirit rather than the life of sense must look to and expect the assistance of natural law. Every act of his life, every thought in his mind, must in some way have close connection with physical happenings. But while the immoral man takes all causes and all desires in their time, and so, from the standpoint of the moral law, does not act freely, the moral man, by staying the appeals of subjective passion and appetite, introduces a new element into his actions that in the light of the moral law renders his deeds essentially free. That is to say, while the moral law is unswervingly obeyed, it is at the same time a law which is self-created and self-imposed. Freedom, then, according to Kant, means conformity to the "pure idea" of Duty. "The pure idea of duty and the idea of freedom necessarily imply each other." So it is that he can say the contrast between what is and what ought to be, or the idea of a moral law, is the first cause of human freedom, for without a conception of an ideal life we could never have become conscious of our freedom. The law of reason and the law of desire are at war. This gives rise to the question, "What ought I to do?" "Do that which will bring happiness," says one. "Be perfect," says another. "Do that which will make thee worthy of happiness," says Kant. Be not simply good; be good for something.*

The moral law is to be obeyed, whether happiness follow or

* This is Kant's, not Thoreau's.

not. It needs no great moral insight to see that happiness does not follow obedience in this life. But this is because one suffers from the disobedience of another; and did all obey, universal happiness is not only conceivable, but we may safely believe that it would be an assured fact. But a world in which such could be the case would be a world ruled by a wise and just Author. Reason compels us to postulate the existence of such a Being. The argument for the existence of God is, therefore, a moral argument. A belief in the being of God is not reached by a logical process, but by the very nature of man as a moral-intellectual being. Kant's own words are unequivocal. He says: "We must suppose a moral cause or author of the world, in order to set before ourselves an ultimate end conformable with the moral law; and in so far as the latter is necessary, so far, that is, in the same degree and on the same ground, the former also must necessarily be admitted; it must, in other words, be admitted that there is a God."

In substantial accord with these views are some of the most prominent theologians of our day; men who are fully alive to the questions raised by modern science, eager to accept their results, and yet men who assert that the supersensible realities handed down to us in revelation, and confirmed in our own consciousness, are unassailed and will forever be unassailed by higher criticism or physical science.

Kant's own notions on religion are worthy of careful study in our effort to grasp the theories of the new school of theology that calls itself by his name. Though Kant sedulously avoided applying the content of the critical philosophy to religion in his regular work as university lecturer, it was evident that such separation between the two could not always be maintained. Fichte, a youthful disciple of Kant, attempted to treat the Biblical revelation as Kant had previously treated experience. And while in the main Kant assented to his conclusions, he did not believe that it was his own place to proclaim them. In his later life, however, Kant expressed himself very decidedly upon questions of religion. It is always the moral content of religion that possesses most interest for Kant. And because the ideal of morality is low in some parts of the Old Testament, it is at once inferred

that in all public religious observance there is an element of accommodation to the weakness of the multitude; in other words, there is a tincture of superstition. The Bible is marred by weaknesses and imperfections. It is the duty of the philosopher, then, to apply here the critical method, and separate the wheat from the chaff. The scholar must criticise everything—even his religion. Kant, by this process, finds that much of the pictorial representation of morality in the Bible is misleading. So, too, God's relation to the world is represented as direct and sensuous rather than dynamic. And certain forms and ceremonies are given a magic power which is out of keeping with the character of a holy God. To one who has read Canon Mozley's defence of the Old Testament legislation for the times in which it was made, these criticisms seem of little force. Kant's fault here is that of his age. History was ignored in the age that produced the critical philosophy. Kant never seems to have looked upon history as a great progressive revelation of God leading man from childhood to manhood. At any rate, the keener minds of the age saw nothing in Kantism contrary to the spirit of Christianity. One enthusiastic admirer wrote to Kant in 1790: "I am convinced that the principle of your moral system can be distinctly shown to be compatible with Christianity."

"There is a God," Kant says, "because nature, even in chaos, could not proceed otherwise than with regularity and order." And again he says: "It is evident that the essential properties of matter must spring from one mind, the source and ground of all beings." Kant sees in life an eternal miracle. He thinks that given matter it would be easy to show how a world might evolve, but not so easy to show how life could come to be. Life is a fact that is wholly inexplicable apart from God.

While no man was more alive to the truly moral and religious than Kant, his general attitude towards the Church of his day was one of indifference. Hegel's excuse for remaining away from church was this, that thinking is worshipping. Kant's reason was that the Church had nothing for him. I doubt if he is wholly excusable here. His whole life showed that he neglected the warmer, organic sympathies, and lived isolate and secluded. Yet the criticism he passed upon the Church was more than half

correct. A Church loses its power to work moral miracles so soon as it becomes an "arena of priestly ambition, intrigue and selfishness," and degrades the name of God till it becomes a cloak for criminal desires. And such, says history, was the Church of Kant's day. The expression "moral miracle" is here used guardedly. While the "Critique of Pure Reason" seems to have demolished the superstructure of a supernatural revelation, it did not really do so. All that the critical philosophy has to say here is that reason is incapable of judging in these matters. The Kantian philosophy did not eradicate the supernatural from our thoughts. Indeed, according to Prof. William Wallace, the positive portion of Kant's work was devoted to "an examination of the evidence which moral law and artistic ideas furnish of its presence and operation in human life."

The positive moral and spiritual content of religion, according to Kant, is built upon a surer foundation than that of formal logic or human reason. But still to seek for confirmation and illustration of these truths everywhere is our duty, and the religious life will gain by such activity. Kant says somewhere, "It is unquestionably necessary to be convinced of God's existence; but it is not quite so necessary to demonstrate it." And in another place he enunciates the same truth, and adds that all such demonstrations are scientifically impossible and worthless. Metaphysics, then, cannot be the foundation-stone of religion and morality.

Two ways of escape from positive and avowed agnosticism are open to the Christian. Professor Mansel, the theological interpreter of Sir William Hamilton, says we may go to revelation and there receive the truths of God which philosophy has failed to reveal. This is the more common view. In spite of Mr. Herbert Spencer's extensive attempt to ridicule the notion, it still continues to be urged by the majority of the faithful who go to make up the common Christian consciousness of our age. Some, however, feel that such a revelation would be useless unless the nature of man itself contained implicitly the idea of God so fully revealed in Scripture. In other words, it is maintained that apart from the historical and educative influence of Scripture, God reveals Himself personally and organically to each individual

and especially to the pure in heart. Dr. Mulford has given consistent and able expression to this view in his "Republic of God."

The Neo-Kantian School of Theology, to which reference has been made, is too little known in this country. Several American scholars have done excellent work in bringing to our notice the results of Hermann Lotze's investigations, but results, even more valuable, obtained by the same school in the field of theology are almost wholly unknown. Germany has no abler "defenders of the faith" than Schultz, Kaftan, Herrmann and Ritschl.* These men believe that a religious conception of Christianity can be and ought to be obtained from the Biblical documents alone. They have no sympathy with the effort to bolster up or explain Christianity by means of a foreign philosophy. They take their stand firmly upon Biblical ground. The Bible does not attempt to prove the existence of God, freedom and immortality, neither do they. They accept them as moral postulates. They affirm that it is impossible to explain the world and man without them. The immediate affirmations of the religious consciousness are set in strong contrast with the secondary theological definitions and elucidations. The Bible is not divided against itself, but its notions are seized in their genesis and traced to their conclusions. The Church has grown out of the Bible as a spiritual force, and therefore the real test of a Church doctrine is its practical efficacy, its moral elevation, and its religious fruitfulness. The essence of the Christian religion is its power to elevate man. No question of the schools, however important, can take precedence over those dogmas practical for the Christian life. Unity, success and the spiritual life grow out of religious convictions, not ecclesiastical regulations.

Among these scholars there is no metaphysical explanation of how truth is found in Scripture. They have no special "theory of inspiration" to defend. The Bible alone, not the later Platonism, reveals the faith of the first Christian centuries. And the soil out of which the New Testament grew was Jewish. The Old Testament looks towards and helps to explain the New. God is best defined by saying, with John, that He is love. He is a

* Albrecht Ritschl, Göttingen, recently deceased.

spiritual person whose will is absolute. Always the things of nature are at His disposal. Miracles are not magnified out of proportion, nor are they denied. They are spoken of as "astonishing events" interpreted by the Christian as providences. It is not the business of religion to run them through the sieve of scientific criticism. The same event may be natural to science and supernatural to faith. Indeed there is no natural law apart from God's will. All law is essentially spiritual; it is law of God, who doeth all things well.

Sin is an admitted fact, it is universal, it is organized, so that we may speak with propriety of a "kingdom of sin." No metaphysical explanation of sin is attempted, it is accepted on Biblical ground because the Bible is grounded on experience. No sooner does a child become morally accountable than he recognizes that he is a sinner, that is, that he has violated the moral law. The "kingdom of sin," as an organized power of temptation, must be renounced. Open hostility to God must give way to love and communion. As to eschatology, these men indulge a lively hope, though no one will be happy except in union with the blessed in the kingdom of God.

No effort is made to put the nature of Christ beyond the comprehension of the lowliest follower. The Neo-Kantian Christology is founded upon the testimony which Jesus has given of Himself. Jesus' will is God's, and therefore we are warranted in regarding all His words and works as revelations of God. All these perfections of the revelation of God in Christ can best be described by ascribing to Him the title of divinity. No effort is made to explain exactly how this can be. It is maintained that it is not the business of religion to satisfy intellectual needs. The deity of Christ should not be approached from the standpoint of either metaphysics, eschatology, or morality, but from the standpoint of the experience of the Christian community. And this community has always seen in Christ's work a personal manifestation of God. It is Prof. Schultz who says: "We see in Christ a truly human personality whose work has for us a truly divine value. In a perfectly human life there was manifested a perfectly divine life." And Ritschl maintains that "the only proper religious authority is the person, the word, and the

work of Christ, as the testimony of the first Christian community has made us know them." Christianity is the spiritual and moral religion *par excellence*.

The loftiness of view of the Neo-Kantians, the calmness and serenity of their thought, coupled with a concise, noble, and vigorous expression of the same, have attracted numerous and enthusiastic students. And among these are some of the ablest. While the Neo-Kantians maintain that the truths of religion are above the reach of the critical philosophy, they are by no means ignorant of the content and value of that philosophy, for it enables them to conceive with clearness what by faith they apprehend with certainty.

One hundred and ten years ago the "Critique of Pure Reason" was published, and just one hundred years ago Kant finished that series of works which so effectively demolished the skepticism of Hume. A worse skepticism in our century is preying upon the world. It is the skepticism of indifference, of practical materialism, of latitudinarian agnosticism. The phlegmatic German has pointed out a way to demolish these, but it will take an American to apply the rule.

IS MATTER ETERNAL, OR HAS IT BEEN CREATED?

[Contributed to the American Institute of Christian Philosophy.]

By Joseph J. Smith, D.D.

Fishkill-on-Hudson, N. Y.

I PRESENTED one phase of this subject in Christian Thought for April, 1890. And having been requested* to say more upon the same line of thought, to which I then referred, I proceed to its brief consideration.

If matter be eternal, whatever may have been its primary condition, there must have been necessarily absolute unity and oneness in the nature and character of all its atoms or molecules wherever found. This being the case, it plainly follows that all the heavenly bodies—the stars and all nebular clusters, as well as planets, would all be composed of the same elements, and in this respect they would be precisely alike, for they would be formed of the same material substance. Hence, not one of these bodies could in this case have had a single element more or less, nor a different element from the rest. But what are the facts in the case? Science has fully demonstrated by the aid of the spectroscope that this unity and oneness in elemental structure does not exist, but quite the contrary.

This wonderful instrument, as is well known, has the magical power to reveal to us the different compound materials that enter into the formation of the heavenly bodies, and, also, the various distant nebulæ, and which has thereby forever exploded the old heathen dogma, asserting the eternity of matter. By the skilful arrangement and adjustment of its prisms, the light that falls upon it from those heavenly bodies, is so analyzed as to distinctly show the character and nature of their substances, and, also,

* I have received a letter from a gentleman in Brazil, S. A., stating that he had translated and published my other article for the people of that country and which was transferred to other journals; and that he has been anxiously waiting month after month to see further evidence upon this subject to which I then referred but which I had not the time, nor space, just then to present.

whether the light comes from a solid body or from gas, and if from the latter, the kind of gas, whether it be nitrogen or hydrogen. In this way, for instance, it is known that in the sun there are calcium, sodium, magnesium, barium, aluminum, nickel, iron and copper. And, as might be expected, these various substances are found in the sunlight reflected to us by the planets of our system.

In this way it has been found that the various stars and nebulæ are made up of widely different elements, instead of a homogeneous element, as the theory of evolution requires. Mr. R. Patterson, when speaking upon this subject, has very fitly said: "Not only do the nebulæ differ from the stars in being in a different mechanical condition through heat, as if they might be stars burned up into gas, retaining all the elements of stars; they present radical differences of chemical composition, such as could by no means originate in any change of temperature. The stars, also, differ from each other in the same remarkable way; they are all composed of several elements and differ in the elements of which they are composed. There is not a trace of homogeneous matter, containing only one simple uncompounded element, in the heavens, neither in the original nebulæ, nor in the suns and stars, which were said to be composed of it." ("Errors of Evolution," page 67.)

Mr. Rutherford of New York, who is of the highest authority on spectrum analysis, informs us that the star-spectra presents such varieties in the composition of those heavenly bodies, that it is exceedingly difficult to adopt any system of classification according to their elements. He has, however, divided them into three groups, each group containing those stars whose elements closely resemble each other, but which are altogether different from the elements of the stars arranged in either of the other two groups. He also tells us that the stars contained in the second class, of which Sirius is the type, "are wholly unlike the sun." And while he disclaims any intention of building up a theory, or of trenching upon the province of the chemist, he, nevertheless, says:

"One thought I cannot forbear suggesting. We have long known 'one star differeth from another star in glory,' (I. Cor.

xv., 41),—we have now the strongest evidence that they also differ in constituent materials, some of them perhaps having no elements to be found in some others. What, then, becomes of that homogeneity of original diffuse matter?" ("Annual of Scientific Discovery," 1865, page 331.)

The results of these investigations furnish the most conclusive proof that this atheistic theory of the eternity and homogeneity of matter, out of which worlds were formed by condensation, is absolutely false. For, as we have seen, the stars, instead of being all composed of this one simple material, as they would have been, if they were formed out of these original homogeneous atoms, are all made up of several elements, which could not possibly be the case if they were all condensed from and out of the same matter, as the theory of evolution demands. Nor is this all; if they had all been condensed from this diffusive primary matter, whatever might have been its character, they would necessarily and inevitably have been all alike in their composition; but as this is not the case, it is absolutely certain that they were not condensed out of any original diffused matter of any kind. From this conclusion there is no escape, for this remarkable difference in the materials that constitute the bodies of the stars, as determined by the spectrum, destroys forever the theory of the eternity and homogeneity of matter.

Were I to affirm that all the elements known to exist, such as oxygen, nitrogen, carbon, sulphur, chlorine, bromine, potassium and sodium, together with all the remaining fifty-eight, have been derived or condensed from the single element, hydrogen, it would not be more at variance with the truth, nor more ridiculously absurd, than is the assumption of evolutionists that all the various elements found in the heavenly bodies have all been condensed from and out of a homogeneous element. The notion of a homogeneous nebulous matter existing in the heavens is overthrown. For it is manifest that unless the elements found in the stars and planets are found in the original mass, the theory breaks down.

Now what have evolutionists to offer in refutation of the above, which is certainly fatal to their theory of the eternity of matter? They seem to have absolutely nothing except quibbles

and dogmatical affirmations to the contrary. Even the most that Herbert Spencer has to say is that the creation of matter is unthinkable, and, therefore, that it is at once to be rejected as false. But this word, which plays so important a part in the works of Herbert Spencer, can no longer be used successfully to blind or bewilder the mind. Its sophistry is too apparent to pass unchallenged. The objection is of no account, because it is founded on a falsehood. It is certainly as much within the range of thought, as is the law of gravitation, or the theory of evolution. If it were not within the compass of thought, how could an intelligent denial even be reached by any human being?

But perhaps it is urged that the word *unthinkable* is used in this connection to mean that the creation of matter is unreasonable, or incomprehensible, to our minds. But wherein is any principle of reason violated in such a statement? Does it not assign a sufficient cause? Is not Omnipotence sufficient for the task? Is it not at least as reasonable as is this theory, that matter is eternal, and that all the forms of vegetable and animal life are the result of chance? Is it not astonishing that men can believe the latter, and at the same time pronounce the creation of matter unthinkable!

Perhaps, however, the word "unthinkable" is used to indicate that the creation of matter is incomprehensible to them. But if so, it still has no force as an objection; for it is absolutely certain that the Divine Being can do but very few things that we can understand how they were done, or how they could be done. It cannot be otherwise. In the works of God—in the vast system of the universe, mystery and inexplicableness are necessarily presented to our imperfect views and reason on every side. How absurd then to make our *ignorance* and our limited capacities the *reason* for rejecting the declaration that God created all things.

Besides, as the intellect of different persons greatly vary in acuteness and power, so that one may distinctly comprehend the nature and possibility of a thing, and plainly see in proofs of divine workmanship, while another may at the same time be wholly ignorant of the nature and possibility of the same, and then his ignorance will, according to this rule, be decisive proof

that it is not a divine work. In this way the divine agency, or the absence of it, is placed not in the nature of the work itself, as it should be, but in the strength or weakness of the intellect by which it is judged. It was in this way that the Copernican theory of astronomy was for some time rejected by the scholars of Europe, because it seemed to them both unreasonable and impossible; or, in other words, it was to them *unthinkable*, and they accordingly at first rejected it; and in so doing rejected a grand and glorious truth. It is therefore evident that this test is fallacious, and consequently this objection is absolutely worthless; for it would even prove to them that their own pet theory, that matter is eternal, is false, for it is certainly far more unthinkable than is its creation. It would prove that space is not boundless, that eternity is a myth; for these are certainly as unthinkable, as is the creation of matter. The *absurdity* of any person rejecting a proposition, because to him it is *unthinkable*, has been very clearly pointed out by Sir William Hamilton in his examination of the philosophy of Reed (p. 377). Sir William says: "We cannot conceive an *ultimate* minimum of space or time, nor can we conceive this infinite divisibility; we cannot conceive the absolute commencement of time, nor the utmost limit of space; and yet we are equally unable to conceive them without a limit. Of these two propositions contradictory, one of which must be true, the doctrine of unconceivability (as a test of truth or falsity) proves *both impossible*, because inconceivable." Hence the dogma that a proposition that is inconceivable is incredible and absurd, *is not true*, as is here declared by the ablest expounder of the canons of logic; and therefore that it is itself false and absurd. In fact, many of the evidences against the theory of the eternity of matter are so strong as to be well-nigh overwhelming.

Creation, therefore, as affirmed by Moses, is the only theory that is tenable. All nature, as well as reason and the Bible, most distinctly points to a beginning of all things, and consequently to a First Omnipotent Cause. They both affirm that before the material, there must have been the immaterial; that above the original formless void, there must have presided the embodiment of all order; that independent of the changeable,

there must have been the unchangeable ; that separated from the fleeting, there must have been the enduring ; that behind the inertia and helplessness of matter, there must have been an Omnipotent Force that moulds and moves the universe ; and that connected with and enforcing all secondary causation or natural phenomena, there must be a primary or " First Cause."

THE SURVIVAL OF HEATHEN SUPERSTITIONS IN CHRISTENDOM.

[Read before the Institute of Christian Philosophy, 7th April, 1891.]

By Prof. Daniel S. Martin, New York.

IN a paper read before the American Folk-Lore Society at its meeting in this city in November last, I presented some views on the subject of superstition as still prevailing among the educated and enlightened of our own and other civilized and Christianized lands. In bringing the topic before the Institute of Christian Philosophy, I shall review some of the same ground that I discussed in the former paper, and shall also present more fully what I deem the religious aspect of the question, and point out the thoroughly unchristian and really pagan character of the so-called popular superstitions which are still tolerated among those who profess their belief in the Scriptures and the Gospel.

It is surprising and discouraging to find, with all our education, culture, progress and general enlightenment, that old superstitions survive and persist to the extent that they do, even among our own people. If any one questions this fact, let him consult the newspaper advertisements in regard to astrology, etc., and he will find ample evidence of the existence of a body of people who live upon these superstitions. But even apart from this, and among a class that would never go to such persons, ideas of this kind are still strangely prevalent.

This has long been to me a subject of thought, and I have deemed it a great scandal and disgrace ; but it has been brought to my attention forcibly of late by a number of circumstances indicating the presence of these superstitions.

It is not the object of this paper to enumerate or specify these, but rather to call attention to the fact of their existence, to seek to investigate some of its causes, and to suggest some possible remedies and duties.

Before we can discuss these subjects intelligently, it is necessary to make some distinction between different kinds of superstitions, and to observe which are those that exhibit this great tenacity of life.

The definition of superstition is far from easy. It involves in general a belief in the unreal, whether objective or relative, with the addition of some superhuman element. The question becomes extremely difficult because of the attitude of some toward religion. To the non-believer in the existence of God or of a Divine Revelation, all religion is superstition. Hence it is hard to treat the subject without arousing controversy from some quarter; as the believer in these things finds in them, rightly understood and acted upon, the remedy for all the forms of low superstition which afflict and degrade and deceive humanity. I have no intention to discuss this question, though holding strongly the latter view, but shall confine myself to speaking of superstition as it is generally understood.

One peculiarity which may be noted as characterizing superstitions is a certain disproportion of elements. This becomes more marked as we pass from higher to lower forms,—from the more rational to the more irrational types. There is what may be termed in the language of rhetoric, anti-climax,—an employment of great and important agencies for utterly worthless and trivial results, or the reverse,—an attributing of important powers to things wholly insignificant and unrelated.

Another peculiarity which belongs to superstition is its absolute uselessness for any practical results,—a mere bondage to vague and hampering fears, with no element of guidance or help or strength for the work of human life.

In classifying superstitions, we can distinguish two main divisions, which may be designated respectively as Objective and Relative, or, perhaps, as Imaginative and Associational.

A. The first of these, the Objective or Imaginative, involves a belief in the existence of unreal beings or the possession of superhuman powers by real beings.

B. The second class—Relative or Associational—involves a belief in the existence of unreal or impossible relations between real events which can have no connection with each other.

Under each of these main heads again, we can recognize several subdivisions.

Under "A," Objective or Imaginative:

1. Apparitions or manifestations from an immaterial or spiritual world, especially of deceased persons, and in Roman Catholic countries, of the Virgin Mary and saints.

2. The existence of imaginary realms and races of beings in this world, largely nocturnal, subterranean or submarine, such as fairies, brownies, mermaids, elves, gnomes, kobolds, genii, etc.

Here belong also the creations of the classical mythology,—satyrs, nymphs, fauns, dryads, *et id omne genus*.

3. The possession of unreal and supernatural powers by animals or even by inanimate objects. Here belong all animal and nature myths.

In the extreme form, all these (1, 2, 3) form objects of worship in pagan religions, corresponding respectively to three marked types, viz.—ancestor-worship, worship of imaginary deities, and animal and nature-worship.

Under "B," Relative or Associational:

4. Occult influences exerted on human life and destiny, both individual and national, by great events or objects in nature, either as causes or prognostics. This coincides with astrology, and is connected no doubt with heliolatry and the worship of the heavenly bodies.

5. Occult influences exerted in the same way by trivial events or objects in nature. Here belongs the whole rabble of superstitions about good and bad luck, coincidences, omens, portents, premonitions, etc., together with the ancient idea of augury from birds, victims, and the like.

6. A milder form of superstition, in which meteorological phenomena are the leading element, including many notions about the changes of the moon and the habits or conduct of animals, as signs or prognostics of weather. In this division there is a mixture of some truth and much error, but hardly superstition in the proper sense of that word, which always involves the idea of some supernatural element.

C. In connection with each and all of the above mentioned divisions, of both kinds, is, lastly:

7. The belief in unreal, extraordinary or superhuman powers possessed by certain persons or classes of persons, who can communicate with other orders of beings, interpret signs and portents, influence changes in nature, etc., etc. This we find among every people and in every age, from the modern civilized "medium" or clairvoyant of New York or London, through all the varied forms of necromancers, conjurers, witches, astrologers, etc., down to the medicine-man, the rain-maker, the voudou-doctor and the fetish-man of savage races. All these are singularly alike, no matter how remote in time or place, or how varied in the details of their craft.

The influence of this class of persons and their pretended claims exhibit a most curious mingling of elements. Not only do they apply themselves more or less at random to all the different groups of superstitions above enumerated, but their powers are obtained and exercised with a singular jumble of methods. In this, hypnotism, legerdemain, audacity, and assumption are joined with partial belief on the part of the operator himself and unlimited gullability in the subject of the operation. Read the astrological and clairvoyant advertisements, that in the face of law and decency appear from day to day in many of our lower-class newspapers, and this aspect will be conspicuous.

In making the above-described rough classification of superstitions, I do not claim by any means to exhaust the subject, which is well-nigh endless, nor do I overlook the fact that all these forms of superstition shade into one another and are mingled together practically in a tangle of fancies and credulities. But I think that the several groups here enumerated may be clearly distinguished in our thought, especially the two great divisions first named, of Imaginary and Associational superstitions ; and the classification may help us in considering the subject from the point of view of this paper, as to their survival among the enlightened.

The first question arising is : What are the forms of superstition that show the greatest amount of this persistence ? and

here we may well be surprised at the result of the inquiry. At this point, however, I would again draw a distinction which seems to me of much importance, between what may be termed Rational and Irrational superstitions. We shall find, I think, that all superstitions are not equally superstitious, and that some are and others are not consistent with something of education and enlightenment in the persons who hold them.

As between the two great classes first indicated, I hold that the Imaginative or Objective superstitions are not irrational in the sense that the second class, the Associational or Relative, are. The latter represent a lower intellectual grade, and are far less amenable to reason than the former. To illustrate this point, which I regard as important, we may note that if a person believes, for example, in apparitions of departed spirits, that is to say, in ghosts, as generally understood, however unusual or improbable it may be, there is nothing in the idea itself that is irrational or absurd.

That such beings should have the power to disclose themselves at times to human sense, is by no means contrary to reason, however contrary it may be to ordinary experience ; and the fact that such manifestations come to be discredited with the advance of intelligence and culture and a better understanding of the ordinary laws of nature, merely proves the inaccuracy of a belief in their reality, and not any absurdity in the conception itself. The same may be said, though in a less degree, of the second group of Objective or Imaginative superstitions. The advance of science dispels such fancies as the existence of fairies, naiads, or dryads: yet for man in a condition without science, with no conception of a reign of law or an orderly system of natural sequences, it is not strange that he should give rein to his imagination, and people the ground, the air, and the sea,—field and forest and stream,—with beings grotesque or beautiful, harmful or helpful, as fancy or tradition might suggest. Nor is it to be wondered at, in view of the singular behavior and surprising instinct frequently displayed by animals, that the unscientific man should exaggerate their powers and attribute to them faculties which they do not possess. Errors and fancies like these, again, are dispelled by intelligent study and a better acquaintance with the facts of nature.

And hence, we find that the first class of superstitions, those that I have termed Objective or Imaginative, disappear with the advance of intelligence and the progress of science. So far, the result is as it should be, and as it is generally supposed to be.

But it is otherwise with the second class, Associational or Relative. In certain of their forms, these exhibit a tenacity of life in the face of general enlightenment, which is extraordinary and disappointing. Of the three subdivisions under the Associational head, the first, indeed, and highest,—astrology,—has well nigh disappeared with the progress of correct ideas of astronomy. The third, that of weather-traditions, still prevails largely; but, as before said, it contains a mingling of truth with error, and much of it is rather mistake than superstition. But the second group, that of omens and signs, with the whole idea of luck, good or bad, is the kind that still retains its influence over many minds that are otherwise really enlightened. These are what I have termed the Irrational superstitions: there is in them no basis of fact to be reached, no partial admixture of truth to be adjusted and separated, no appeal to the reasoning faculty. And yet, strange as it may seem, it is this class of superstitions that has the firmest hold and most general distribution even yet among those who deem themselves, and who really are, intelligent persons.

But it is stranger still, that there seems no recognition among those under the dominion of these fancies, or in society in general, of the intellectual abnormity and weakness of such superstition. It is referred to as a trivial matter, a pardonable foible, a subject for amusement rather than humiliation; and yet it is, as I think I have shown, a far lower form of superstition, intellectually and morally, as well, than those of the first class—the Objective or Imaginative group. Yet multitudes of persons, who would indignantly repel the imputation of believing in ghosts or in witches, will admit, without shame, a hesitancy in passing under a ladder, or in dining with a company of thirteen!

To return briefly to our classification, and note the forms that have yielded, and those that have not, to the advance of intelligence, I would observe that—

Among enlightened communities, the Objective superstitions

have mainly disappeared, the second and third groups almost wholly, and the first very generally. No educated people now believe in the existence of elves or fairies, and scarcely any in the possession of human or superhuman faculties by animals, although the extraordinary process of conjuring rats, as described by Mr. Newell in his remarkable paper before the Folk-Lore Society, is a very curious illustration of a superstition of this class surviving in an enlightened community like New England. As to the first group, very few persons of any education now believe in the appearance of the regular old-fashioned ghosts; though in the new and improved (?) form of so-called "spiritual manifestations," this type of superstition is yet far from extinct.

In the second main division, Relative or Associational, I have already referred to the general disappearance of the first subdivision, astrology, from modern belief, with the progress of astronomical science, and on the other hand, to the strange persistence of the second group in the face of our boasted enlightenment. The third group, of weather-notions, is also very persistent; but as it is largely concerned with purely natural phenomena, it is so far hardly superstition in the strict use of that word, and will yield gradually and more or less readily to the diffusion of correct ideas in regard to meteorology. Here again, there is a basis of truth, a field for progress, and an appeal to science and to reason; and the mistakes due to crude observation and imperfect knowledge are only such as have been met and disposed of in all departments of science. To one who does not understand something of astronomy and physics, the idea that the moon should influence the weather is no more unlikely or remarkable than that it should influence the tides. Indeed, in many of the popular notions on subjects of this kind, there is a misconceived basis of real connection, which may yield valuable results to science, when properly investigated; and such ideas, though often very crude and erroneous, are not always to be rejected because the connection is obscure. Those whose life is largely in the open air, and whose daily dependence for the harvest of the sea or of the land is closely connected with the weather, gain much empirical knowledge which should not be lightly set at nought by the student of books and laboratories. There may be in such

cases the clue to discoveries yet to be made in the complex relations of nature. Here I may instance one or two cases as examples of the important distinction between superstition proper and errors of belief as to facts. The natural idea that an east wind brings a storm from the Atlantic is now known to be erroneous. It brings the moisture, indeed; but it is the consequence and not the cause of the storm that is coming from the west and passing over the country eastward. Here is the confusion of antecedent with cause; but all is purely natural, and the phenomena thus erroneously connected belong to the same category and have a real connection, though of a different and more complicated kind. But the notion of sailors that the transportation of a body will bring storm or disaster on the voyage, or that whistling will produce a wind, is an example of superstition, pure and simple. Here there is no possible basis for connection, because the phenomena concerned are in different categories and cannot be correlated or adjusted in any manner whatever.

This irrational character is that which especially marks the second division of the Associational or Relative class of superstitions, and which renders it, as I have said, intellectually lower than the others, and less amenable to reason, more difficult to remove, more persistent and more discreditable in an age of enlightenment.

To enumerate the forms in which these lower superstitions still prevail, would be a matter of curious and, I might say, painful interest, but it would be quite beyond my present purpose and limit. A few examples of the more frequent forms may be cited merely for illustration. They almost all centre about the pernicious delusion of *luck*—a something which is neither God nor Nature, and hence is independent of either Providence or law. They are almost all characterized by the irrational linking of events that belong to different categories and hence cannot have any possible relation. They are all marked by that peculiar uselessness, for any practical purpose, which is a definite feature of superstition.

The ordinary forms in which these superstitions are met with include such notions as the lucky or unlucky character of cer-

tain times, numbers, places or incidents. For instance, the objection to Friday, the superstition about thirteen at table, the dread of breaking a mirror or passing under a ladder, the new moon seen on the right or left side, the howling of a dog, the dislike of opals as a gem, etc., etc. To these may be added a host of fancies relating to health and disease ; though these are, again, a milder type of superstition, and in many cases have, like the weather-notions, either some faint distorted basis of occasional truth, or some subjective effect on the mind which reacts on the body. Certain medicinal herbs, for instance, depend for their value on being gathered by the light of the full moon. This idea may have its origin in the fact, perhaps, that they are ripe for use at about such a time of the season and are best when secured at that period. A horse-chestnut is carried in the pocket as a remedy or a protection from rheumatism. Such is the influence of the mind on the body, that anything so used and believed in may in some cases have an effect.

It would be possible, and very interesting, to trace to their origin many of these superstitions. But this would be a long and elaborate undertaking, requiring the co-operation of many minds. I suggest it, however, as a promising field for research. In some cases, the origin is very plain, especially in the Objective or Imaginative superstitions, where a slender basis of partial or misconceived fact is made to bear an inverted pyramid wrought by the co-operation of fear and fancy. In the matter, for instance, of apparitions of the deceased or the absent, the natural feelings of dread, curiosity and longing, as to the departed, predispose the mind to such ideas, in the absence of science and especially of divine revelation ; while the fact of hallucinations and illusions of sense furnishes the element of occasional truth.

Here I may mention a marked instance of this kind known to me very well, in the family of a valued friend. It resembles the celebrated case of "Mrs. A.," described so fully by Sir David Brewster. Here two sisters, cultivated Christian young ladies, are familiar with sense-illusions,—the one of sight, the other of sound. Animals, friends, and members of the family are at times seen by the one, and their voices at other times are heard by the

other, when no real object is present. The subjects of this curious experience understand it so well that it causes them no disturbance beyond a momentary surprise. But what a powerful basis for all sorts of superstition would such sounds and apparitions form to persons of less culture and intelligence!

But time would fail to enter on this general discussion, and I confine myself to a few points bearing on the probable origin of some of these lower forms of Associational superstitions, which alone are a serious problem in our present society. The whole idea of luck, omens, portents, etc., I regard as a survival of heathenism, and as having not only an intellectual, but a moral and religious aspect. Intellectually considered, it retains its hold through mere association of ideas, generally impressed at a very early age. It is to be feared that these burdening superstitions are often taught to children by ignorant and thoughtless nurses, or by more thoughtless and blameworthy parents, as a short and easy substitute for careful and truthful methods of control. Instead of explaining the reason for a command to a child, or insisting on the duty of obedience when explanation is not wise or not possible, some form of deception is resorted to as a labor-saving process. The child, *e.g.*, is told that to break the mirror will bring "bad luck," or that disobedient children are carried off by the chimney-sweep. Now observe the difference. As the child grows up, it learns to understand all about the chimney-sweep, and loses the pitiful dread in which I have myself seen little ones leave their play and run for protection at the approach of the harmless blackamoor. But the breaking of the mirror, with its undefinable and "unknowable" spectre of "luck," remains as an impression on the mind, not easily shaken off even in later years. I suspect that many of the common superstitions of bad luck have originated and are perpetuated in this way; and when to this is added the influence of tales and fancies heard from youthful companions, and gathered in the reading of fiction, we have a pretty clear idea as to frequent sources. In the last connection, it may be noted that the absurd folly about opals, by which that exquisite gem has long been subject to disfavor as "unlucky," is by some traced to one of Sir Walter Scott's novels (Anne of Geierstein).

But whence this idea of luck, which, as I have said, lies at the root of all these superstitions? It is one of the most widely diffused ideas of the human race, being found in every savage tribe and every stage of culture. It forms the basis of the gambling passion, which rules and ruins its votaries, from the Indian tepêe to the gilded saloons of Monte Carlo. It is involved in all these persistent forms of superstition among the enlightened, and belonging, as I have said, neither to the realm of Nature nor to that of Providence, is a *tertium quid* amenable to neither science nor religion.

To my mind, the idea has a moral character, and can only be fully reached by moral means. The conception of the universe, as given by Divine Revelation, is that of a great system, governed and ordered by one infinite Being, in righteousness, wisdom, and benevolence. Science gives us the intellectual aspects, the physical connections of events, the reign of law, the course of development. Revelation gives us the source and the end, the principles and the objects, the plan and the purpose of it all, as for great moral ends. For these, all events are ordered and brought about through the processes of Nature and Providence.

Now in a scheme like this there is no *tertium quid*, no place for the phantom of luck. No trivial incident of the moment, if it be not a moral act, can change the moral or providential relations of future events. Hence the belief in luck is as inconsistent with the belief in divine government as it is with the principles of scientific reasoning, and is a reversion to ideas purely heathen and irrational. In this aspect, I regard the whole body of these superstitions as having a character peculiarly obnoxious and unworthy, and as needing to be dealt with earnestly and strongly, not only from the intellectual side as absurd, but from the moral and religious side as wrong. In this respect they differ from the other class—the objective superstitions—which often have nothing of this moral element, however absurd scientifically. If any one believes, for example,—as described in Mr. Newell's remarkable paper,—that rats can read a letter and thus be induced to change their quarters, there is in this no moral or religious character, however preposterous and grotesque it may be intellectually. But if a person believes that seeing the moon

in a certain direction, or wearing a ring of a certain kind, will influence events in his own or another's life, the intellectual absurdity is fully as great, and there is involved, besides, a moral element of pagan idolatry, in a partial denial of the one true God, and a reference of events to some other unknown, yet feared or trusted, power.

It is here that I would emphasize with all my strength the utter inconsistency of a Christian's tolerating such superstitions, or deeming them of light or trivial character. His life and death, his prosperity and adversity, his daily experiences of every kind, are either ordained of God his heavenly Father, in wisdom, love, and gracious discipline, or they are the sport of unknown beings and powers, of whose character and purposes he can have no knowledge, and with whom he can hold no intercourse. This latter view is heathenism, pure and simple, with all its fear, darkness and degradation. Can any Christian believer hesitate for one moment between these two views? The Scripture is perfectly clear and definite on these points.

"Take no anxious thought for life, for food, for raiment, for . . . your Father knoweth that ye have need of all these things; but rather seek ye the kingdom of God and all these things shall be added unto you." "The very hairs of your head are all numbered." "Not a sparrow shall fall to the ground without your Father." "All things work together for good to them that love God." "All things are yours, whether . . . life, or death, or things present, or things to come, all are yours, and ye are Christ's and Christ is God's." Time would fail to multiply similar citations.

Now I claim that in the face of all these and a host of similar assurances from the Word of God, any belief in luck is a pure survival of paganism, and has no more place in the thought of a Christian man or woman than the belief in an idol deity. The forms may vary indefinitely, but the principle is the same,—a belief in some other being or power, as influencing the events of life, than the one living and true God.

When a heathen man is converted, his first great step is to abandon his former idols. The images before which he used to bow in dread or in trust, he now tears down and destroys, or brings

them to the missionary as trophies. In the very words of the Scripture he says, "What have I to do any more with idols?" This is his open declaration of turning from heathen superstitions to an intelligent faith in the true God his heavenly Father. But if he should still retain in his house some image or fetish, and continue to believe that his doing thus or otherwise toward it would tend to his health or sickness, his prosperity or adversity, the man would show himself to be still an idolater at heart, and it is very doubtful if any Christian missionary would admit him as a convert into the communion of believers.

Now what is the difference between this action of a heathen man and that of one in Christian lands who believes that doing some trivial act in a particular manner, or wearing some kind of ring or seal, or joining with a company of a certain number, or on a certain day, will influence future events, of health, or prosperity, or life? It is the same thing in a more subtle guise,—a paganism thinly veiled,—and should be clearly recognized as such by all who "profess and call themselves Christians," and trampled out with the same decision that they would use in tearing down an image of Buddha or a shrine of deified ancestors.

Such ideas are natural enough—to the "natural man"—to one who is an orphan and a wanderer, "having no hope and without God in the world." But they are not only folly, but gross unbelief and sin in any who have learned the character of God, and who in any true sense have accepted Him as their God. From all such miserable phantoms it is the glory of Revelation to set man free, to send him forth to walk the earth in his native right once more as the lord of creation, the child of God, and the heir presumptive of all things in Christ,—as the Apostle words it,—"to deliver them who, through fear of death, were all their lifetime subject to bondage."

The topic is a vast one, and far transcends the limits of this paper. Many a form of superstition, alas, has not only co-existed indeed with the doctrines and practices of Christendom, but has interwoven itself with them, to their degradation and their hurt. Of these there is no space here to discourse. But in closing these remarks, I would most earnestly urge upon all persons of intelligence, and especially upon Christian believers, the sys-

tematic endeavor to exert an influence on public sentiment which will brand these surviving forms of superstition with the disgrace that they deserve.

It should be made a matter of equal shame for any person to avow or to act upon the follies about Friday, or thirteen, or luck in any form, as it would be to fear to enter a dark room, or to believe that an old woman could turn into a black cat or fly through the air on a broomstick.

I would also press upon all parents and all teachers their important responsibility in preventing and stamping out in the minds of children every such wretched delusion. Were this to be done by all educated and religious parents, we might hope that another generation would be emancipated from these pagan follies, and would look back upon the superstitions that still linger among us, as we do upon the witchcraft and alchemy of the Middle Ages and the fairies and trolls of Celtic and Scandinavian mythology.

"*Pellantur ergo istæ pæne aniles ineptiæ.*"

NOTES.

[The following extracts from the writings of learned skeptics and of Christian authors are suggested to infidel lecturers as throwing some light on their pet alliterative thesis of "Christianity a Corroding Cancer." All will find these passages excellent reading. We are indebted for their collection to Mr. J. H. Mitchell.]

MR. T. RISELY GRIFFITH: "Sierra Leone is an interesting spectacle. Seventy years ago it was a heathen land: to-day it is filled with places of worship."

MAX MULLER: "Not till the word barbarian was struck out of the dictionary of mankind and replaced by brother, not till the right of the nations of the world to be classed as members of one genus or kind was recognized, can we look for even the first beginnings of our science.

"This change was effected by Christianity. To the Hindoo every man not true-born was Melachlia. To the Greek every man not speaking Greek was a barbarian.

"It was Christianity that first broke down the barrier between black and white.

"Humanity is a word you look for in vain in Plato or Aristotle. The idea of mankind as one family, as the children of one God, is an idea of Christian growth, and the science of mankind is a science which, without Christianity, could never have sprung into life."—"Language," vol. i., p. 127.

Again, "Chips," vol. i., p. 183, second edition, Max Muller affirms: "Many are the advantages to be derived from a careful study of other religions, but the greatest of all is that it teaches us to appreciate more truly what we possess in our own. When do we feel the blessings of our own country more warmly and truly than when we return from abroad? It is the same with regard to religion. Let us see what other nations have had and still have in the place of religion; let us examine the prayers, the worship, the theology even of the most highly civilized races—the Greeks, the Romans, the Hindoos, the Persians—and we shall then understand more thoroughly what blessings are vouchsafed to us in being allowed to breathe from the first breath of life the pure air of a land of Christian light and knowledge. We are too apt to take the greatest blessings as matters of course, and even religion forms no exception, we have done so little to gain our religion. We have suffered so little for the cause of truth that, however highly we prize our Christianity, we never prize it highly enough until we compare it with the religions of the world."

KESHUB CHUNDER SEN, the leader of the Brahmo Somaj, Calcutta, in one of his annual addresses in the Town Hall, Calcutta, said: "India is unconsciously imbibing the spirit of a new civilization, and succumbing to its irresistible influence. It is not the British army that deserves honor for holding India. If to any army appertain that honor, that army is the army of Christian missionaries, headed by their invincible captain, Jesus Christ. Their devotion, their self-abnegation, their philanthropy, their love of God, their attachment and allegiance to the truth—all these have found and will continue to find a deep place in the gratitude of our countrymen. It is needless for me to bestow eulogium upon such tried friends and benefactors of our country. They have brought unto us Christ. They have given

us the high code of Christian ethics, and their teaching and example have secretly influenced and won thousands of non-Christian Hindus."

PROFESSOR HUXLEY: "No one who had seen the condition of the poor as he saw them when a medical officer, had failed to note that in the lowest haunts where misery and wretchedness existed, and to which he had not found a parallel amongst the savages whom he had once visited, the people owed all they were taught to the ministers of religion."—*Daily News*, Feb. 23d, 1877.

MEMORABILIA.

SINS OF BELIEF AND SINS OF UNBELIEF.—Under this title, St. George Mivart contributed a very thoughtful article to the *Nineteenth Century* for October, 1888. It concludes as follows: We are not of course responsible, abstractedly speaking, for our feelings, affections, and beliefs; but yet really, and in the concrete, we are so. Being the unity we are, we have not, properly speaking, a will which is free, but we are free in willing. Nor have we really an intellect and feelings which may or may not act together; but we ourselves can know and feel, and we may feel with various degrees of intensity in knowing, and know in feeling. It is by long-continued, reiterated, and strong volitions in certain directions that we can cultivate particular groups of feelings, which again, when in exercise, render our corresponding volitions more easy, and thus indirectly we may, as we urged in the beginning of this paper, commit sins both of belief and unbelief. Men, then, may commit sins of belief: (1) When by a negligence easily avoided, and therefore culpable, they accept inadequate evidence as adequate. (2) When they give themselves up to emotions which, though not in themselves open to objection, yet are so strong as to blind them to evidence against something they desire to believe. (3) When a belief is really due to desires or sentiments which, though not vehement, are in themselves objectionable. (4) When a belief is occasioned by a will directed in opposition to the laws of ethics, or to the maintenance of a mental attitude which diverges from the truth and is therefore irrational. Similarly, men may commit sins of un-

belief by (1) negligence; (2) by unduly yielding to blameless emotions; (3) by yielding to blameworthy emotions; and (4) through a badly directed will.

Amidst all the practical difficulties which may occasionally arise as to belief, one thing is clear: volitions scrupulously directed to what is seen to be good, desires for what is just, and aspirations towards what is best and noblest, cannot be occasions of evil, and we should not seek to eliminate their influence. To believe, therefore, either in the trustworthiness of our faculties, in the objective validity of the moral law, in the existence of God, and in a future state of rewards and punishments, when we see the weight of the arguments in favor of such beliefs, can never be to commit a sin of belief nor can it be in any way culpable to allow full play to those ethical emotions and volitions which have been herein noted as favoring and tending towards such beliefs. If, however, the arguments and considerations here urged are of any weight, it follows, and must follow, that a disbelief in these four truths is, in the abstract, extremely culpable; to doubt any one of them, a flagrant sin of unbelief. But this plain abstract truth need not lead us to an uncharitable judgment respecting any individual unbeliever, for whom there may actually be much excuse. No doubt many men have been, and are, revolted by the grossness of expression of certain religious persons and by the childish superstition of others. These defects we may indeed know to be but the hard rind enclosing good fruit within, but such a fact may remain to others hidden and unsuspected. Again, the influence of prejudices of education or peculiar idiosyncrasies of mind may occasion unbelief which is not culpable. Even persons who entertain a culpable unbelief may display a candor and a spirit of sympathy which inspire in us a certain esteem and regard. To whatever extent disbelief may be carried, however, as long as a real respect for virtue is maintained, it is not really atheistic. He is not altogether without God who worships moral excellence. Revolt from a wrong idea of God which may alone have been inculcated, may make atheism relatively legitimate: but otherwise an explicit, absolute, persistent denial of God by any one who sees the denial of objective goodness therein contained, is, and must

be, without excuse, and in the highest possible degree culpable. It is the last and greatest of all sins of unbelief.

A CHANGE OF OPINION.—Mr. Darwin did not believe in the possibility of elevating the inhabitants of Terra del Fuego, and declared that they were hopeless. The Gospel was given and the most marvellous results followed.

When Mr. Darwin heard the facts, he wrote in 1870 to his friend Admiral Sullivan, who had been his shipmate on the Beagle: "I had never heard a word about the success of the Terra del Fuego misison. It is most wonderful, and shames me, as I always prophesied utter failure. It is a grand success. I shall feel proud if your committee think fit to elect me an honorary member of your society."

The following statement by Admiral Sullivan was printed in 1885:

"Mr. Darwin had often expressed to me his conviction that it was utterly useless to send missionaries to such a set of savages as the Fuegians, probably the very lowest of the human race. I had always replied that I did not believe any human beings existed too low to comprehend the simple message of the Gospel of Christ. After many years, I think about 1867, but I cannot find the letter, he wrote to me that the recent accounts of the mission proved to him that he had been wrong and I right in our estimate of the native character, and the possibility of doing them good through missionaries; and he requested me to forward to the society an inclosed check for five pounds, as a testimony of the interest he took in their good work. On June 6th, 1874, he wrote: 'I am very glad to hear so good an account of the Fuegians, and it is wonderful.' On June 10th, 1879: 'The progress of the Fuegians is wonderful, and had it not occurred, would have been to me quite incredible.' On January 3d, 1880: 'Your extracts (from a journal) about the Fuegians are extremely curious, and have interested me much, and I have often said that the progress of Japan was the greatest wonder in the world; but I declare that the progress of Fuego is almost equally wonderful.' On March 20th, 1881: 'The account of the Fuegians interested not only me, but all my family. It is truly wonderful

what you have heard from Mr. Bridges about their honesty and their language. I certainly should have predicted that not all the missionaries in the world could have done what has been done.'"

AN ASSYRIAN LIBRARY THIRTY-FIVE CENTURIES OLD.—Prof. Sayce gives an interesting account of the recent discovery of long buried tablets and inscriptions, which have an important bearing on certain test questions in Biblical criticism :

From them we learn that in the fifteenth century before our era—a century before the Exodus—active literary intercourse was going on throughout the civilized world of Western Asia, between Babylon and Egypt and the smaller States of Palestine, of Syria, of Mesopotamia, and even of Eastern Kappadokia. And this intercourse was carried on by means of the Babylonian language and the complicated Babylonian script. This implies that, all over the civilized East, there were libraries and schools where the Babylonian language and literature were taught and learned. Babylonian appears to have been as much the language of diplomacy and cultivated society as French has become in modern times, with the difference that, whereas it does not take long to learn to read French, the cuneiform syllabary required years of hard labor and attention before it could be acquired. We can now understand the meaning of the name of the Canaanitish city which stood near Hebron, and which seems to have been one of the most important of the towns of Southern Palestine. Kirjath Sepher, or "book town," must have been the seat of a famous library, consisting mainly, if not altogether, as the Telel-Amarna tablets inform us, of clay tablets inscribed with cuneiform characters. As the city also bore the name of Debir, or "Sanctuary," we may conclude that the tablets were stored in its chief temple, like the libraries of Assyria and Babylonia. It may be that they are still lying under the soil, awaiting the day when the spade of the excavator shall restore them to light. The literary influence of Babylonia in the age before the Israelitish conquest of Palestine explains the occurrence of the names of Babylonian deities among the inhabitants of the West. Moses died on the summit of Mount Nebo, which received

its name from the Babylonian god of literature, to whom the great temple of Borsippa was dedicated; the Sinai itself, the mountain "of Sin," testifies to a worship of the Babylonian Moon-god, Sin, amid the solitudes of the desert. Moloch or Malik was a Babylonian divinity like Rimmon the Air-god, after whom more than one locality in Palestine was named, and Anat, the wife of Anu, the Sky-god, gave her name to the Palestinian Annah, as well as to Anathoh, the city of the Anat goddesses.

CONFIRMATION OF HOLY SCRIPTURES. — The confirmation of recent discoveries is almost as wonderful as a miracle. Almost every day adds something to the proof that the Bible is perfectly genuine and trustworthy. In the *Deutsche Rundschau* Dr. Brugsch, the famous Egyptologist, reports a remarkable discovery, which will be of especial interest to students of the Bible. In January last there was found near Luxor in Egypt (close to the site where stood Thebes "of a hundred gates") a tablet, written in hieroglyphics, in which a person named Chit-bet relates that he had accomplished many mysterious things, "owing,' as this interesting inscription goes on to say, "to the great distress that had been caused by the Nile not overflowing its banks for seven years." The words are very distinct and admit of no other interpretation. On this a contemporary remarks: "The reference to Joseph and the seven years of famine will at once suggest itself. Dr. Brugsch critically examines the writing upon the stone, in his article, and comes to the conclusion that it is perfectly genuine, and is the work of a priest who lived 400 years before the common era. The name of the Pharaoh is unfortunately not given, but the reference to Joseph is undoubtedly correct. This marvellous discovery adds another link to the long record of the hidden things of the past that have been laid bare to the modern eye. The inquisitive modern explorer has gradually revealed to us the monuments and treasures of hoary antiquity, has shown us the stone histories of Assyria, Babylon, Moab, Egypt. Such wonderful testimony to the historical accuracy of the Bible, if any were necessary, cannot be looked upon as a matter of pure chance. Who knows what is yet in store for

coming generations; what strange and miraculous discoveries are still to be made, which will really read to the amazed world as 'sermons in stones'? Surely God is doing marvellous things for the present age. Just now, while the most determined efforts are made to discount the Bible, it is scarcely an accident that these long-buried testimonies are uncovered, and their light thrown on the current controversy. Doubtless, all this has happened according to a Divine plan. At any rate, it is difficult to believe that it has come about by blind chance."

PROF. WINCHELL, A CHRISTIAN SCIENTIST.—Prof. Alexander Winchell, of the Michigan University, died at Ann Arbor, Mich., on Thursday, Feb. 19th, in the sixty-first year of his age. He was graduated from the Wesleyan University in 1847, and received the title of Doctor of Laws from the same institution twenty years later. From the time of his graduation Professor Winchell has been engaged in teaching and in the prosecution of scientific research. He has long been regarded as one of the leading geologists of this country. His progressive views have in some cases appeared to be in conflict with the theological doctrines of orthodox denominations. While Professor of Geology in Vanderbilt University some years ago he contributed certain articles to the *Northern Christian Advocate* on "Pre-adamite Man," which led the authorities of that institution to seek his removal.

Dr. Winchell has always had the respect of Christian people because of the manliness, sincerity, and integrity of his Christian character. A devout disciple of Christ, his scientific studies never interfered with his loyalty to the Church and the simplicity of his faith. The title of one of his most interesting and valuable books is "Reconciliations of Science and Religion." He labored zealously to prevent the breach between religion and culture which many modern scientists have sought to create. Enthusiastic in promoting scientific explorations and progress, he considered the spiritual development and improvement of the soul as far more important.

Dr. Winchell held many important positions in connection with educational institutions during his active career. He began

as a teacher in Pennington Seminary, afterward engaging in the same profession at Amenia, N. Y., and again for a considerable time in Alabama. In 1854 he was elected to the Chair of Physics and Civil Engineering in the University of Michigan, and one year later was transferred to the Chair of Geology, Zoology, and Botany, a position which he filled for many years, and then resigned, only to return to it after having served the Syracuse University as Chancellor and Professor of Geology, and occupied the Chair of Geology in the Vanderbilt University for a short time. He delivered one of the lectures at the first Summer School of Christian Philosophy.

He was a voluminous author, having published twelve or fifteen considerable volumes, mostly on scientific subjects. His work was not limited to teaching and authorship. He at one time filled the office of Director of the Geological Survey of Michigan and other positions of importance.

Dr. Winchell was a remarkable man in many respects. His personal appearance attracted attention. Fifteen years ago when he frequently spoke at Chautauqua his manly bearing, copious black hair, dark speaking eye, sonorous voice, graceful and easy carriage, and intelligent countenance, rendered him popular and interesting as a lecturer, even on scientific topics. He has served his generation well, and his removal is a great loss to the cause of education and religion.

MONTHLY MEETINGS.

By the Secretary.

June 2d, 1891.—At the meeting held at 8 P.M. in Hamilton Hall, Columbia College, the devotional exercises were conducted by the president, Rev. Dr. Deems. The minutes of the last meeting were approved.

Rev. Dr. James H. Rylance, rector of St. Mark's, New York City, read a paper on "Reason and Faith; their Claims and Conflicts," which was discussed by members of the Institute and the president. A vote of thanks was presented to Dr. Rylance for his timely address, and a copy requested for publication in Christian Thought.

ABOUT BOOKS.

[In this department we shall make mention of recent publications, especially those in the line of our studies. There will not be space for extended review. The name of the book, its publisher, and its price when known, together with a brief statement of its drift will probably meet the demands of our readers. Any book mentioned will be sent post-paid, on receipt of price, by WILBUR B. KETCHAM, 2 Cooper Union, New York.]

THE International System of Sunday-school Lessons has given rise to quite a literature. It would be a work to gather the titles of the great library which has been produced each year during the last decade to illustrate each year's lessons. We have space now to call attention to only the two very latest books in this department.

The lessons for the quarter beginning for the 1st of July and ending with this year are taken from the Gospel of St. John.

1. The American Tract Society publishes a volume of 348 pages, entitled "Studies in John's Gospel, the Gospel of Christ's Deity." It is from the pen of Rev. David Gregg, D.D., the pastor of the Lafayette Avenue Presbyterian Church, Brooklyn. The prologue sets forth the character of the Gospel of John, whose writings, Dr. Gregg says, are "like those deep goblet-lakes which the mountains hold up to the gaze of the world, six and eight thousand feet in the air," the waters of which are "as clear as dew drops, but it takes a long line to fathom their depths." Matthew's Gospel Dr. Gregg characterizes as "the Gospel of the kingdom," Mark's as "the Gospel of the servant of God," Luke's as "the Gospel of the humanity of Christ," and John's as "the Gospel of the Deity of Christ." In each of the twenty-four chapters of the book the author either takes the Golden Text of the Sunday-school Lesson or some striking passage and writes upon that theme a discourse on the central truth. These discourses are much above the average of sermons. They are broad and deep. They instruct and edify, while they hold and delight the reader. Dr. Gregg has distinguished himself as an author. This book will justly add to his fame. It is a valuable contribution to permanent religious literature.

2. The other volume is a book of 365 pages, published by

Wilbur B. Ketcham. The title is "The Gospel of Spiritual Insight, being Studies in the Gospel of St. John." It is from the pen of the editor of CHRISTIAN THOUGHT, and he can, therefore, do little but announce its publication. It has the same number of chapters as Dr. Gregg's book and runs along the line of the Sunday-school Lessons for the quarter, but instead of taking the Golden Text, generally the author has taken the whole subject of each lesson and discussed it. The Gospel is taken as the noblest specimen of spiritual insight in all literature. John has done what has been attempted by every great writer of world-acknowledged genius, namely, made the supernatural natural. They all failed. He succeeded. The author of the book has studied the Christ from twenty-four standpoints occupied by St. John as he wrote of our Lord, "that he might see the Master, as nearly as he could with the eyes of the beloved disciple," that he might see as far as possible into the heart of God by seeing into the heart of Jesus. How far he has succeeded I cannot say.

But it is interesting to see how two minds travel the same line of thought. I shall be very happy if I have not fallen far behind my brother traveller, who is so alert and so robust. Each of us has found his God in Christ. In that the two books are much alike, but in nothing else. "Which do I like best?" It is not fair to ask *me* that question. The first is my *nephew*, being my brother Gregg's child, the other is my son, being my own offspring. I should be glad to make thousands of readers know and love them both. C. F. D.

Dr. William M. Taylor, pastor of the Broadway Tabernacle, New York City, has added to his published volumes a very able and deeply interesting volume named, "The Miracles of our Saviour Expounded and Illustrated." It is published by A. C. Armstrong & Son, and is a companion to Dr. Taylor's well-received volume on "The Miracles of our Lord." We can recollect the impression made by Dean Trench's volume on the subjects. They have not lost their value, but Dr. Taylor's volumes surpass Dr. Trench's in homiletic value. Every Christian preacher should study both.

Christian Thought.

THE SCIENTIFIC AND SOCIAL LAW OF SURVIVAL.

[Delivered before the American Institute of Christian Philosophy, August 5th, 1891.]

By Rev. William W. McLane, D.D., Ph.D., New Haven, Conn.

SCIENCE is the goddess before whose shrine men bow and worship. Science is the oracle to whose voice men listen and whose word they believe. Science, however, is a goddess not by divine right, but by virtue of human franchise. Science is an oracle whose utterance is but the echo of man's voice, and whose dictum is but the repetition of man's word. Science can give no quality of any substance which man has not first perceived; Science can give no dimensions of any body which man has not first measured; Science can peer into no distances which man has not first searched and can bring back no report of any thing which man has not first seen. That is to say, Science can teach us absolutely nothing which she herself has not first learned of some man. The authority of Science, therefore, is no less and no greater than the authority of man. Science can give no facts which are beyond human experience, above present powers of reason and incapable of present verification. Those scientific truths which are matters of common observation, or of universal experience, or which are capable of complete demonstration, or which explain satisfactorily all the facts connected with any given phenomena, must be received. Those scientific hypotheses and theories which cannot be matters of common observation or of universal experience may continue to be questioned and modified and changed, until they are either rejected or until they comprehend and explain all, and not merely some,

of the facts connected with the phenomena of which they treat. With these important principles in mind, we are prepared to enter upon the consideration of the law of survival. What are the conditions under which and what is the fundamental law by means of which living, sentient beings, born into the world, resist the destructive forces of nature and survive, fulfil the normal course and complete the possibilities of life?

I. The scientific law of survival, according to the most common conception of the present time, is that of universal warfare, in which the weak are deprived of food and of life, and in which the strong secure food and survive. This law, expressed in scientific terminology, is "The Struggle for Existence," "Natural Selection," and "The Survival of the Fittest." A lion, cunning, cruel and strong, standing over a simple, innocent and powerless lamb would be a fitting symbol of this law. Such is the law which Science now teaches and in which men believe.

Nature is a prolific mother who produces more children than she can nourish. The children struggle with each other for the insufficient nourishment furnished by nature's breast. The unsuccessful starve and die; the successful eat and live. A few quotations from "The Origin of Species" will illustrate this theory. "All plants and animals are tending to increase at a geometrical ratio." "The amount of food for each species of course gives the extreme limit to which each can increase." "This law of 'the struggle for existence' is the doctrine of Malthus applied with manifold force to the whole animal and vegetable kingdoms." "The struggle will almost invariably be most severe between individuals of the same species; for they frequent the same district, require the same food, and are exposed to the same dangers." As a result of this competition, "Of the many individuals of any species which are periodically born but a small number can survive." "Nothing," says Mr. Darwin, "is easier than to admit in words the truth of the universal struggle for life, or more difficult—at least I have found it so—than constantly to bear this conclusion in mind. Yet, unless it be thoroughly engrained in the mind, the whole economy of nature, with every fact on distribution, rarity, abundance, extinction and variation, will be dimly seen or quite misunderstood." Accord-

ing to this statement, "the struggle for existence" is the soul of Mr. Darwin's philosophy of life; and, according to Mr. Heackel, the chief service which Mr. Darwin has rendered is the discovery of this law.

This law, which has been sufficiently stated for present purposes, rests upon many undoubted facts. The first necessity of animal life is food; in the struggle for food, many animals are destroyed. A few facts will illustrate this. Many kinds of animals feed upon other animals. The lower species of marine animals are devoured by higher species; small fishes are eaten by larger ones. The eggs of birds are destroyed by other birds and by beasts. One species of animal often strives to exterminate another kindred species. In the United States, the increase of one species of swallow has caused the decrease of another species. In parts of Scotland the increase of the missel-thrush has caused the decrease of the song-thrush. One species of rat takes the place of another species under the most different climates. "In Russia, the small Asiatic cockroach has everywhere driven before it its great congener. In Australia, the imported hive bee is rapidly exterminating the small, stingless, native bee." There is, therefore, among animals a struggle for the possession of a habitat and for food; the food is appropriated by the stronger, and the weaker themselves sometimes become food for the stronger races and species. This law of competition which operates in different genera is even more pronounced and severe in species of the same genus and most severe in varieties and in individual members of the same species. This law of nature divides the entire animal kingdom into hostile armies engaged in warfare with each other; it divides species of the same genus into hostile bands which engage in battle; it divides individuals of the same community into inimical duelists who fight with each other for place and for food.

This law of warfare operates not only in determining what animals shall obtain food and so survive individually or as a class, but it operates also in determining what individuals shall form sexual union and so propagate their individual peculiarities. "This term, struggle for existence, includes the life of the individual and success in leaving progeny." A part of natural selec-

tion is called sexual selection, which is the struggle between individuals of one sex, generally the males, for the possession of the other sex. The law of battle for the possession of the female prevails in wide ranges of animal life. "How low in the scale of nature," says Mr. Darwin, "the law of battle descends I know not. Male alligators have been described as fighting, bellowing and whirling around, like Indians in a war dance, for the possession of the females; male salmons have been observed fighting all day long; male stag-beetles sometimes bear wounds from the huge mandibles of other males; the males of certain insects have been seen fighting for a particular female who sits by, an apparently unconcerned beholder of the struggle, and then retires with the conqueror." "The law of battle prevails with aquatic as with terrestrial mammals." Male seals and male sperm-whales fight with each other. "With mammals, the male appears to win the female much more through the law of battle than through the display of his charms." "The most timid animals, not provided with any special weapons, engage in desperate conflicts during the season of love. Two male hares had been seen to fight together until one was killed; male moles often fight and sometimes with fatal results; male squirrels engage in frequent contests and often wound each other severely." Bulls and stags fight desperately; skeletons of the latter have been found with their horns locked inextricably together showing how miserably they had died. All male animals which are furnished with special weapons for fighting are well known to engage in fierce battles. A hornless stag or a spurless cock would have a poor chance of leaving many offspring.

This law of battle finds a place also among men. As the males of the gregarious mammals usually fight for the females, so, according to Bancroft and Lubbock, the men of some savage tribes "fight for the possession of the women just like stags." Among many tribes the strongest man not only wins the woman of his choice, but even carries away the woman who has been consorting with another man. Among the Australians, the women are the constant cause of war both between individuals of the same tribe and between distinct tribes. The boldest and strongest men succeed best in the general struggle for life and

also in securing wives and in leaving a large number of offspring. The importance of this law to all who deal with the facts of human life and endeavor to shape men's lives is that men are included in it and are subject to its operations. Were it not for this fact, I would not discuss the subject. "Man," says Mr. Darwin, "tends to multiply at so rapid a rate that his offspring are necessarily exposed to a struggle for existence and consequently to natural selection." There are many facts in human history which seem to accord with this theory and to support it. Wars of invasion and conquest; the decimation and destruction of weak nations by strong ones; the acquisition of land and of the means of subsistence on the part of the crafty and the powerful; the enslavement of an inferior portion of the human race by a superior portion; the long confinement and hard toil of men in factories, in which not many years since, in England, children were introduced to labor at the age of five or six years, and some children were worked from twelve to fifteen hours per day to the permanent injury of the children and to the enrichment of a few employers who made enormous fortunes; the crowding of the poor into uncomfortable and often unhealthful quarters, so that in New York City at the present time a little more than thirty-seven thousand tenements house more than one million two hundred and fifty thousand people, or three-fourths of the population of that city; the extreme poverty of many, so great that in New York City in the past five years one person in every ten that died was buried in the Potter's field; and the mortality among the children of the poor accord beautifully with the scientific theory of "the struggle for existence." If this is indeed nature's supreme law of life by which all the higher classes of animals have been developed and all the highest types and most perfect specimens of every species have been produced; if men are included under this law, and if by its operation not only warriors and rulers but also scientists and statesmen, artisans and artists, philanthropists and prophets have been produced, then the governmental and social methods of the past, the methods of warfare, and of human slavery, and of private seizure of lands, and of business competition, and of the oppression of the poor ought to prevail in the future; for this is nature's

method of weeding out the weak and of improving the strong, and, according to this gospel of science, the mighty and not the meek shall inherit the earth. This gospel of science is not without its consolation also. "When we reflect," says Mr. Darwin, "on this struggle, we may console ourselves with the full belief that the war of Nature is not incessant, that no fear is felt, that death is generally prompt, and that the vigorous, the healthy and the happy survive and multiply." But this comfort hardly applies to the human race, with many of whom the war is incessant, fear of want is continually felt, death is not prompt and the unhealthy and the sorrowful survive and suffer. However much confirmation of their practical creed and however much comfort this law may bring to those selfish men who oppress the weak, who add field to field and house to house until there is no place for the poor to dwell in, who crush the helpless and who live solely for self, there are some who are compelled to ask the question, Is this really the true law of life? Is the kingdom of nature the very opposite of the kingdom of Heaven? Is the law of love, according to which Christian men are to live, opposed to nature's law of life? Is Ishmael with his hand against every man and every man's hand against him nature's typical man? Has Bougereau's beautiful picture of charity—a woman holding two needy children in her arms—no place in nature's law?

That the facts adduced in support of the law of "the struggle for existence" are true, no one will deny. But are they all the facts upon which a general law should rest? May they have not been given undue significance? May they not have been unduly emphasized? Are there not other facts which being taken into account will materially modify this philosophy? May not the law of survival be stated in terms which will include all the facts? For example, two plants growing in the same soil may be said to struggle with each other for subsistence in time of drought, yet it is not the struggle but the moisture which insures life; two dogs may struggle with each other for a bone in time of scarcity, yet it is not the struggle but the bone which supports life; if there is moisture enough and if there are bones enough both plants and both dogs will survive. That is to say, the struggle of plants and animals with each other is an incident,

but correspondence with food, that is to say, access to food and the possession of it, is the essential thing upon which life depends.

II. The Law of Correspondence, therefore, is the proper definition of the scientific law of life. That any living creature born into the world may continue to exist and develop normally and fulfil its destiny it must be brought into correspondence with the means of life. It is, practically, no matter how this correspondence is established, life is thereby preserved. Now I propose to show that correspondence is not commonly established by warfare and that that phase of animal life has been given undue prominence in that Science which has stated and defended the law of "the struggle for existence." I shall call attention, first, to some facts of minor importance, and, then, to some very significant facts which the advocates of the law of "the struggle for existence" seem to have overlooked or to have underestimated in the formation of their philosophy of life. Mr. Darwin admits that he knows not how low in the scale of animal life the law of battle descends. There is, then, a limit below which certain classes of living creatures do not struggle with each other in battle either for food or for conjugal union ; there is a limit beneath which the preservation of life depends simply upon an established correspondence with the means of life. Correspondence is the law of life in its lowest ranges. Above this limit where battle is found it is, nevertheless, the establishment of correspondence which insures life. Birds may fight for the same tree in which to build nests, cattle may fight for the possession of the same pasture, men may fight to obtain the same food ; but, if there are plenty of trees, and pasture, and food, all will survive. In the case of men, as I shall show hereafter, their multiplication causes a multiplication of food. In these higher ranges of life, as in the lower ranges, correspondence is the law of survival. I shall leave out of account those cases in which one class of animals subsists, naturally, upon another class ; for in such cases, we may conclude that, according to nature, it should be so. There seems, however, to be abundant provision for the preservation of those species which are food for other animals. According to Drs. Dobson and Frouessart, two hundred and eight existing species of insectivores

are known and yet what vast numbers of insects live! Many animals which are exposed as prey live by avoiding battle; the timid are more secure than the bold and fear rather than fighting is the protection of life. For example, rodents like the rat, the rabbit, the squirrel and the beaver are all herbivorous and apparently unequal to their foes; but, by their cunning, their wariness, their timidity, their agility and their secretiveness, they hold their own against a host of natural enemies such as rapacious beasts and birds. If it be said that cunning and wariness are qualities which may be used in warfare, I reply that, in the case of these rodents, they are qualities which are used in avoiding battle and it is not fighting but desisting from fighting which secures life. Life, in these cases, is secured simply by correspondence with food. Three minor facts are thus far apparent. (1) There is a limit beneath which living creatures do not engage in warfare. (2) There are means of continuing in existence large numbers of insects which are, naturally, food for other animals against which they cannot fight. (3) There is a large class of animals which continue to exist by avoiding battle and by contriving to correspond with the food supply.

There are three other very important and significant facts to which I shall now call attention. (*a*) The first and the greatest fact of animal life is the instinct of parental love. All young animals, which are above the very lowest orders, are produced in a state of helplessness and depend on parental care for support. The bee provides shelter and food for the future young; the bird builds her nest, broods over her young, labors for their support and places herself between them and threatened danger; marsupials bear their young in a pouch of nature's providing, and the largest member of the family, the kangaroo, carries and suckles her young eight months; mammals, universally, defend their young, and instances are not rare of devotion unto death. Nature's laws must, inevitably, find their truest expression in the highest orders and ranks of life. In the human race, which is the crown of the animal kingdom, love of offspring is one of the supreme laws of life. Parents, with a few exceptions, universally practise self-denial and bear suffering for sake of their children. Here is a sphere in which another factor than that of individu-

ality and a selfish struggle for life plays an important part. In this sphere, love reigns and the young live not by fighting but by faith and survive not by struggle but by support. If it be said that parental love is only extended selfishness and that the parent simply struggles for himself as reproduced in his offspring, I reply that it is a central fact and a supreme fact, inconsistent with that philosophy which makes the law of life a selfish struggle for existence, that at the very beginning of their career in the world all the young, save a very few of the lowest orders of the animal kingdom, are embosomed in love. The fundamental and essential law of animal life, without which life is impossible, is that the elder should serve the younger, the strong should shelter the weak, and the rich, who possess food, should feed the poor. The significance of parental love, as illustrating the law of life, has been overlooked by the present, popular, scientific philosophy. (*b*) The second significant fact of animal life is the instinct of sexual love and the law of sexual union. One of the universal facts of nature running through both the vegetable and the animal kingdom is that of sex. Darwinian philosophy lays the stress of nature's law of sex upon force and teaches that the forcible apprehension and possession of the female by the more powerful male or the voluntary favor of the female bestowed upon the male who has conquered other males and proven himself the strongest is the condition of sexul union. Male salmon, it is said, and seals, and stags, and bulls, and cocks, and men fight with each other for the possession of their favored females. It is true that males fight with each other and the fact that they are of the same sex may be the fundamental cause of their fighting ; but it is, at least, worthy of note that, among domestic animals, the fighting frequently takes place when no female is in question. The law of battle has been unduly emphasized. There is not that hostile feeling among male animals for each other which the common law of sexual selection would indicate. In the spawning season, two male fish have been found each pressed against one side of the same female. Birds are generally monogamous and brides are won not by battle but by the display of male charms of plumage or of song. Bats are sociable and gregarious, but the two sexes do not as a rule in-

termingle but come together only at the nuptial season ; at other times they live apart and sometimes at considerable distance, so that in a large colony of a given species not a single individual of the female sex may be found, while in another females will abound and not a male occur. Some bats numbered among the Frugivera are not only of a sociable but also of a convivial turn of mind. Mr. Francis Day says : " Their habits are very intemperate and they often pass the night drinking the toddy from the chatties of the cocoanut trees which results either in their returning home in the early morning in a state of extreme and riotous intoxication or in being found next day at the foot of the trees sleeping off the effects of their midnight debauch." Buffalo travel in herds and in the season of union bulls fight with each other for the graces of a particular cow ; the fights, however, are rarely fatal and after pairing the same bull and cow remain together until spring. Elephants travel in herds of from twenty-five to one hundred and generally live in peace with each other. Among domestic animals we commonly find peace, and a good degree of fellowship among males which occupy the same territory. Among men, even in barbarous tribes, I have failed to find, in a wide range of reading on the subject, sufficient evidence to lead me to believe that physical strength is the attraction, and success in battle with rivals the form, of courtship by which a bride is commonly won. Brides of barbarous people have their ideas of beauty and their feelings of spiritual affinity. A writer upon the subject has observed that where the custom is for a lover to pursue and capture the maiden of his choice, the girl is rarely caught unless she evidently wishes to be. The unrestricted freedom of the young of both sexes and the light estimate put upon chastity in girls by primitive peoples are against the theory that sexual selection is but one form of the law of " the struggle for existence."

This leads to the most important of all the observations upon this subject, viz., that in sexual selection factors enter and determine choices of which we have little or no knowledge, and individual affinities and preferences are found in the lower classes of animals as well as in man. The courtship of birds is of a peaceful character. Birds of paradise and others display their

gorgeous plumage and perform strange antics before the females, who choose at length the most attractive partner. All naturalists who have given attention to the subject believe that there is the severest rivalry between the males of many species to attract the females by singing.

Among domestic animals, as Mr. Darwin admits, unaccountable preferences are found. Female dogs are able to bestow their affections ; they are not always prudent in their loves ; some females of fine blood have been known to fling themselves away on curs of low degree ; they are capable of a passion which becomes more than of a romantic endurance. Horses of both sexes have been known to be capricious and to reject the favor of one of the other sex and accept the favor of another without any reason apparent to men. Mr. Darwin cites the testimony of a clergyman who testifies that in a wide experience in raising them, he found the fact of individual preference true even of pigs. Mr. Darwin says : "There can be no doubt that with most of our domesticated quadrupeds strong individual antipathies and preferences are frequently exhibited, and much more frequently by the female than by the male." If this is true of domestic animals whose life is largely controlled by man, it must be more true, in a state of nature, where the individualities of each animal have free play. Men exhibit individual preferences and choices in a marked manner. It is idle to suppose that the affinities and the affections which are so strong in civilized and cultivated society have no place in the uncivilized and barbarous. The entire freedom of temporary union and of divorce found among some tribes, like the Bushmen of Africa and the tribes of Lower California, who, as Bancroft says, "pair off according to fancy" ; the customs of courtship which prevail in many tribes; the choices of parents for their children, so common throughout a large part of the world, in which motives of family rank and material gain enter, all prove that, so far as the human race is concerned, courage and strength which insure success in battle do not always insure success in love. The law of sex is attraction not repulsion, affection not hate, concord not strife, union not division, and life not death. The antipathy of males for each other and their warfare are the smallest and the least

important items in sexual selection. The affinities and the affections of the male and the female for each other, unaccountable though they may be, are, in the long run, and especially in the higher orders of life, the positive and determining factors both in the propagation and the improvement of animals and men.

(*c*) The third fact to be noted is the social instincts of animals and the law of co-operation. According to the Darwinian philosophy, the struggle of animals with each other for the means of subsistence is most severe between individuals of the same species; because they occupy the same territory and demand the same food. I marvel that so careful and so candid an observer as Mr. Darwin has not noted the fact that among animals of the same species attraction is stronger than repulsion, peace is more prevalent than strife, and co-operation rather than competition is the condition of obtaining food, of propagation and of survival. Fish swim in shoals. Birds migrate in flocks. Cattle roam in herds. Men live in tribes. The ant-hill by the wayside, the wasp's nest suspended from the limb of a tree in the forest, the flock of crows flying over a corn-field, the herd of buffalo roaming over a prairie, the tribe of barbarous men living in villages and tilling their fields in the heart of Africa, the city in which men live in the most perfect form of civilized life, all witness to the fact that social union and co-operation is the universal law of life.

Mr. Grote has said: "Positive morality in some form or other has existed in every society of which the world has had experience." This seems to be a fact not only of mankind but of the entire animal kingdom. The ant-hill, the bee hive, the flock of birds, the herd of cattle, the tribe of men constitute a community pervaded by social instincts and controlled by some sort of moral law. Ants claim the possession of the city which they have built, of the roads which they have laid out and of the adjoining territory. Each individual ant exists for the community and has its rank and its labor. The queen bee may hold her position against rivals by virtue of strength, but her sway over her subjects depends upon their love for her and a certain moral power of law which leads the individual bee to

serve the queen and her community. Crows and herons seem to form a sort of republic where all are subject to a code of laws which the majority are ready to put in force against any offender. Among buffaloes, wild horses, elephants and baboons, the strongest, generally a male in the prime of life, exerts supremacy ; but that he is not absolutely uncontrolled, but presides over a republic constituted by common law, is evidenced by the fact that the male adults which live in exile are always the largest and most powerful. These insects and birds and beasts live in communities from love of their kind, for mutual protection and defence and for the purpose of procuring homes and food.

In the human race, with which also we are most concerned, the superiority of the law of correspondence over that of the struggle for life and of co-operation over competition is most apparent. Man is a social being endowed with an instinct which leads to a perception of relation to other men and to the formation of civil government. Mr. Wallace, in his work "On Natural Selection," says: "Man is social and sympathetic. In the rudest tribes the sick are assisted at least with food. Some division of labor takes place, the swiftest hunt, the less active fish or gather fruits, food is to some extent exchanged or divided. The action of natural selection is therefore checked. Mental and moral qualities, capacity for acting in concert for protection, for the acquisition of food and shelter, sympathy which leads all in turn to assist each other, the sense of right which checks depredations, the smaller development of the combative and destructive propensities, self-restraint in present appetites, and that intelligent foresight which prepares for the future are all qualities which from their earliest appearance must have been for the benefit of each community, and would, therefore, have become subjects of natural selection." But these are all qualities which lead away from pure selfishness and strife. There are some singular illustrations of these social sympathies. Dr. Dubac says: "I presented one of the natives of Australia with a pair of breeches in the hope of exciting his egotism and putting him in an opposition to the less lucky ones, but before the next day the pantaloons had made the circuit of every pair of legs in

the tribe and had been displayed on the nether extremities of the very ones whom I wished to humble. I gave one a little flour and hoped thereby to arouse the jealousy of the others, but the same evening a fire was built, cakes were baked and without any distinction of mine and thine were partaken of by the whole band. I had found a principle of nature; communism is the primitive condition of mankind." Whether communism is the primitive condition of mankind or not, the fact remains that combination and co-operation lie at the basis of man's social development. The struggle for life in the shape of warfare of any kind does not play the part which has been claimed for it. I can simply call attention to a few facts without pausing to illustrate them in any detailed way. Wars do not secure the survival of the fittest. The feeble are exempt from military service, the sick are left behind on the march, the cowardly drop back from the line of battle, the courageous and conscientious endure the conflict and it is the military flower of a nation which is cut down at Thermopylae and Waterloo. It is the feebler portion of the vanquished and often, also, of the victorious nation which survives a war. Slavery, also, is a state of society which in its historic development does not tend to improve either the slaves or their masters. It is worthy of note that even among mites and parasitic worms, the more these tiny creatures live within and upon other living beings the more do they become degraded and lose their active powers. The same law of degradation operates among men. The history of nations proves conclusively that men have improved mainly by the prevalence of peace, by combination, by division of labor and by co-operation. Holland and England, though not lacking in military ability and renown, have achieved their chief greatness by the arts of peace, by manufactures and commerce.

Manufacture which converts raw materials into useful articles, commerce which brings men into correspondence with the means of life, and education and Christian missions which bring men into accord in thought and purpose are now doing more to improve the human race than wars and limitations of trade and selfish individual competitions have ever done.

There is another most important fact which has been either

overlooked or practically ignored by the advocates of the law of "the struggle for existence," and that is the fact that though men may tend to increase in a geometrical ratio, they tend to make the means of subsistence increase in like ratio. The multiplication of men means the multiplication of the means of subsistence. For example, if a ship load of cattle had been landed at the port of New Haven two hundred and fifty years ago and left to roam wild in Connecticut, they would not have increased the means of their support; but the colony of men who landed there at that time immediately began to multiply the means of subsistence. Every normal pair of human hands can produce more than one human mouth can eat. There may be a limit beyond which the means of subsistence cannot be increased, and the fears of Malthus may be realized, but that limit has never been reached and is far from being reached to-day. There are other limits than strife and starvation to increase of population. Mr. Darwin says: "The causes which check the natural tendency of each species to increase are most obscure. We know not exactly what the checks are in a single instance."

In view of these facts, instead of saying that warfare is the natural and normal law of human existence, that the methods of the past should be continued in the future, that nation should be set in arms against nation, that kingdom should legislate against kingdom, that one manufacturing company should crush another, that one merchant should destroy another merchant's trade by a merciless competition, that one man should compete fiercely against another man and that the world must be a world of want and strife and woe, we may now proclaim that Science herself has a gospel of peace upon earth and of good will among men. We may publish in the name of Science, that the spiritual law of life is love, that the material law is correspondence with the means of subsistence and that the social law is co-operation. Mr. Spencer, who believes, thoroughly, in "the survival of the fittest," and applies the law of "the struggle for existence" to social relations, says: "The many who revile competition strangely ignore the enormous benefits resulting from it; they forget that most of the appliances and products distinguishing civilization from savagery and making possible the maintenance

of a large population on a small area have been developed by the struggle for existence." Is this true? That competition exists and has certain advantages and ought, to a degree, to have full play among men, I do not deny; but that it has been the chief cause of human advancement is not true to the facts in the case. Competition, as Science knows it and teaches it, is the struggle of each individual for himself. It has been said that necessity is the mother of invention; it would be more correct to say that necessity is the great-great-grandmother of it. The discoverers in Science such as the Herschels and the Newtons have not been led into a search for truth by the need of bread; the explorers of the world, such as Columbus, Livingstone and Stanley have been men who would deny themselves and suffer for the sake of increasing the knowledge of the world; the inventors such as Watt and Stephenson and Howe and Morse, however much they may have been impressed by the wants of men, have been inspired by another genius than that of the struggle for life. The improvements of modern society are not due to competition but to the combination and co-operation of men. It is this which distinguishes civilization from savagery. The congregation of men and the division of labor in factories, the concentration of capital in firms and companies and corporations have multiplied the products, facilitated the exchanges and increased the comforts of modern life. From the manufactory where men gather for purposes of handicraft to the university where men assemble to teach and to learn, co-operation for a common end has been the condition of mutual improvement and of social gain. I conclude, therefore, that the congregation, combination and co-operation of men by which the means of subsistence are multiplied and correspondence therewith secured is both the scientific and the social law of survival.

Let me call attention in the third place to,

III. The perception and practical application of the social law of survival. There are two methods of discovering truth, one is the way of experience; the other is the way of observation, inference and conclusion; the former is the way of practical men; the latter is the method of philosophers. It is a remarkable fact of the present time that many practical men who are seeking

their own interests and philosophers who advocate principles are crying out against the system of competition and are urging the advantages of co-operation. The poverty of many who labor and the perplexity which men meet in business lead them to ask if there may not be some better way than that of competition. Men perceive that the cheapened products of our industrial system result from the co-operation of men in their production. The co-operation of men in a factory in which every man performs his special part is well-nigh perfect. There is a widespread feeling, however, that there is not the same co-operation in the distribution and division of the things produced. An effort is now being made by organized societies of workmen to secure a more equitable division of the products of labor and a more perfect correspondence with the means of subsistence. Trades-unions, corporations and trusts are formed for the purpose of securing to those who enter them a more favorable distribution of the profits of labor or of business. This is a significant fact. An old maxim says, "Competition is the life of trade"; experience proves that it is often the death of the tradesman. The unions now existing are often selfish in spirit and unjust in action, but they are all indicative of the increasing estimate of the value of union and co-operation on the part of those who are engaged in the same labor or business. Philosophers who do not form opinions from the standpoint of personal experience but from the wider range of observation, are outspoken in respect of the waste and loss of an unregulated and unlimited competitive system of business. Prof. Ely, who has acquired reputation as a writer on social science, says: "There are single instances of waste which in themselves are of national importance." He cites the case of the West Shore and the Nickel Plate railway paralleling another line from New York to Chicago, and says that the construction was a loss of two hundred million dollars, with the addition of annual loss resulting from the operation of needless lines of railway. Prof. Ely says: "The estimate in annual loss in business in this country due to competition in railroads is equivalent to two hundred million of dollars." "It is an underestimate of the loss of labor power and capital power in this one branch of business during the present

generation to claim that it is equivalent to the expenditure of labor and capital which it would require to supply all the people of the United States with comfortable homes supposing they had none now." Take another example. The telegraph is the product of one man's brain and the first line was built and tested in 1844 by the United States government. "There were in 1851 over fifty telegraph companies in the United States, each one of which represents waste." These companies have almost all become absorbed in the Western Union whose receipts in 1889 were more than twenty million of dollars, whose expenses were about two-thirds of that sum and whose profits must, therefore, have been above six million of dollars. The superior and cheaper service rendered by one company instead of many will be generally admitted. It is questioned, however, whether there may not be devised some system of ownership or control which may secure even cheaper rates and thus add to the wealth of all who are served by such a system rather than to the wealth of the few who own such a system. Take another example. In a city like New Haven a family of six or eight persons can have an unlimited supply of water brought into their house for some twenty dollars per year. A limited supply of milk for the same time will cost the same family more than one hundred dollars per year and one-half or more of this cost is for delivery of the milk from the depot. It is true that water is conveyed in pipes and milk in wagons, but the cost of delivery is largely due to the fact that two or more milkmen drive over the same route. A milk trust, by reducing delivery to a system, would greatly reduce the cost. Mr. Spencer compares human society to a bodily organism. The distributive system of any body should be reduced to a minimum. The same is true of a social body. An increase of the producers of any article tends to multiply the article and to decrease the value of it and thereby to increase the wealth and benefit all who use that article. An increase of the number of the distributors of any article tends to increase the cost of the article and is, therefore, a disadvantage to all who use it. An increase of producers and a decrease of distributors tends alike to cheapen products, increase wealth and benefit society. There is little danger to a community from production though a few producers

may suffer from fall of prices. The main line of danger and the line along which improvement must be wrought is the line of distribution. The present social system seems imperfect. The wealth which has accrued from governmental grants of land, from franchises conferred by cities upon private corporations and from the control of railroads and like enterprises by a few persons has gone to a few men. This has resulted from the fact that public favors have been conferred upon the strong and rich and often upon the unscrupulous. One of the living questions of the present is this, Can a system of business and especially of public business be devised by which intelligent and industrious men, who are the physical and intellectual equals and, sometimes, the moral superiors of the men who now amass immense fortunes, can secure a larger portion of the wealth which they create and thus the average wealth and comfort be increased? Can there be brought to pass a social system which shall secure better results than in the past, in health, competence, intelligence, morals and personal independence? Love is the spirit, combination the condition and co-operation the principle by which better results may be produced.

Mr. Booth, of the Salvation Army, who deserves the credit of having studied and experimented on the condition of the very poor in London, says, "Co-operation is one of the chief elements of hope in the future." My purpose in this paper is to set forth nature's law of survival, namely, correspondence, to show the prevalence of this law in the animal kingdom, and to call attention to the growing recognition of this law on the part of men. It is not my purpose to advocate socialism or to undertake to determine the applications of this law. The practical bearing of this law may, however, be illustrated by indicating some of the lines along which co-operation has been or may be applied.

The doctrine of *laissez faire* that the spontaneous actions of individuals, each acting on his own instance, will secure the best results is both questioned as a principle and disproved, at least in individual cases. One form of social union is that of co-operative societies. Societies of workingmen for mutual production, consumption and credit have been formed. It has been claimed

that such co-operative societies have been a failure. There will always be failure where business is managed by incompetence. If we compare the number of failures on the part of co-operative societies with the number of failures on the part of individuals and firms in the same business, perhaps the proportion of failures to successes may not be unusually large. Instances of success are certainly not rare. Some societies for production, like the last makers and the masons of Paris, have proved very successful. Kirkup says : "The co-operative movement has already proved, and is still proving, its fitness and vitality."

Societies for consumption, when well conducted, have proved very beneficial. Some twenty-eight poor weavers in England in the year 1844 formed a society to get wholesome food at the lowest rate. In 1886, or some forty years after the first society began, there were, in England, one thousand four hundred and nine such co-operative societies with a membership of nine hundred and twelve thousand, a capital of nine million five hundred thousand pounds, and annual sales of thirty-two million five hundred thousand pounds. Similar societies have been successful in Germany and other countries. It is estimated that at Paris articles of first necessity, when sold to workingmen, undergo an increase of some forty per cent. To obviate this the Orleans Railway Co. sells goods at wholesale price to its fourteen thousand employes. Another form of co-operation specially applicable to mercantile business and which has proven very satisfactory in some establishments is that of profit sharing.

A form of semi-co-operation is that of building associations. These building associations are said to have built one-fifth of all the homes in the great city of Philadelphia.

"The more," says Mr. Booth, "working people can be banded together in voluntary organizations, created and administered by themselves for the protection of their own interests, the better." Another form of co-operation, advocated by many, is that of ownership by government of such things as are likely to become monopolies and in which competition is practically impossible. There are serious objections to this scheme, and unless civil service can be separated from political patronage it would be accompanied by great difficulties in this country. Neverthe-

less the principle seems to be good, that what is needed by all the members of a community, as water for example, or what serves all the people of a state or nation directly or indirectly, as a railroad, should be owned and controlled by the people of such a community or state or nation for their own benefit. Police oversight, fire department, public schools, public parks and such like things are already furnished by each municipality and in many cities water-works and in some cities gas-works are owned by the city. Departments of the national government like the treasury and the post office, despite the frequent changes of the heads of such departments, are well managed. If evils are detected, as they have been in the postal department, the detection indicates how much more easy it is to discover abuses and wrongs in public than in private business. Government ownership might, perhaps, be extended to embrace railroads, telegraphs and such like things without detriment to business or to the people. If a corporation can construct a railway largely by issuing bonds, a government can do the same. If a corporation can find heads of departments, often at a moderate salary, government can do the same. If a government can obtain judges who are able to decide what is lawful, and executives who can administer affairs, and generals who can control men for very reasonable salaries, certainly it could secure equally able and faithful men for other departments of public business. If governments which enlist, feed, clothe, train and control large armies to protect themselves from each other, would enlist a small portion of such men and train them in the arts of peace, they might render much valuable service. The peace force of Great Britain is upwards of one hundred and forty thousand men ; that of France is upwards of five hundred thousand men ; that of Germany is almost five hundred thousand men ; that of Austria is upwards of three hundred thousand men ; that of Italy is upwards of two hundred and fifty thousand men ; that of Russia is upwards of eight hundred thousand men. These men are under arms in time of peace. Governments which obtain generals competent to provide for such large bodies of men and to train and control them absolutely could certainly find men competent to manage business affairs less complicated than war, and to con-

trol men to further the arts of peace. Whether it is best for governments to undertake such business I do not assume to say. Such are some of the methods by which it is proposed to apply the principles of co-operation to the business affairs of men. Socialism in an extreme form will hardly come to prevail. Nature demands the recognition of individual differences of strength, talent and skill. Nature demands room for the play of individual power and for the hope of reward. Both competition and co-operation must have a place in any social system which is true to nature. Competition should be for excellence in work and service, and co-operation should be for mutual assistance. Socialism, it is said, maintains that the moral law should control the relations of business and the whole field of human action every day in the week. That principle, at least, is true. Louis Blanc has said: "The day will come when it will be recognized that each one's debt to his fellow-men is in proportion to the strength and intelligence he has received from God." We can, at least, hope that the time will come when wars shall have ceased; when there shall be a complete international code of laws and an international supreme court to decide all cases of differences between nations; when education shall be universal and shall lead on to that point at which every man is educated to do something; when private monopolies which crush competition and control markets shall be impossible; when a large degree of voluntary or legal co-operation shall exist; when men shall come into better correspondence with the material, the intellectual and the spiritual conditions of life; when poverty and pain, suffering and sorrow shall be lessened; when a greater degree of plenty and of peace, of health and of happiness shall abound. This is a dream which may prove to be a prophecy, a vision which may become a reality.

The philosophy which underlies this state of society for which so many now hope is Christian philosophy. It rests upon the divine law, "Thou shalt love thy neighbor as thyself." It is the product of the golden rule, "Whatsoever ye would that men should do to you, do ye even so to them." It measures obligation by ability, "Freely ye have received, freely give." It measures duty by opportunity, "As we have therefore opportunity let

us do good to all men." It measures greatness by service and pronounces him greatest who serves most. It is the practical fulfilment, in the sphere of this world, both of the law and of the prophets. When the seer of science and the prophet of spiritual truth see eye to eye, they will both proclaim that, in the law of life, the kingdom of nature and the kingdom of Heaven are one.

Remarks on Dr. McLane's Paper. By PROFESSOR G. MACLOSKIE:

I am greatly pleased with this paper, and regard it as showing how much benefit may come to a clergyman from having a practical knowledge of science. There are a few common misunderstandings on the subject-matter, to which I will briefly refer. It is an error to interpret survival of the fittest as signifying survival of the strongest. In many cases the law requires the weak to survive: thus in France under Napoleon the people who survived were those whose infirmity prevented their being sent to fight his battles, and during religious persecutions in France it was the people with slippery consciences that survived; the result being that France has been degraded in moral and physical character. In many cases entire species or even groups of species have been degraded; the active, moving, handsome members, with limbs and sense-organs, expose themselves to danger and perish; while their lazy brothers, by nestling in rocks, and often in a parasitical way stealing their food, and losing limbs and eyes, and their symmetry, are preserved often in great numbers. It is the opinion of men like Darwin that the general outcome of evolution, for the whole animal, and for the whole vegetable kingdom, is advantageous: but we cannot say so much for any one species without independent evidence.

Another error is to take the metaphorical expression "struggle for existence" as involving a conflict. In some cases there may be a conflict, but in the great majority there is merely neighborly competition, with good feeling, or even co-operation: in plants there cannot be feeling, good or bad, but there is often striking co-operation. The real meaning of the expression is seen by considering that, whereas the supply of food will sustain only five, the family that is produced

numbers twenty; then either all must suffer terribly, or a few by greater quickness, or by some accident, are able to appropriate the food soonest, and the rest perish. The application of this principle is universal: even the germs of disease may multiply in the human body so as in a short time to use up all the nutriment, and if in this way they exhaust the body they die along with it, only the few that by some accident were conveyed to another body surviving. The nutriment does not increase along with their increase but is quickly used up. Cohn shows that if all the earth were composed of food for bacteria, a single one of these organisms at its normal rate of growth would in four-and-a-half days have used up all the food, and having with its own offspring become as large as the earth, there would be no further possibility of existence. Ordinarily, the only limit to the increase of numbers is the limit of food: when the wolves eat too large a proportion of the lambs, they necessitate the reduction of their own numbers. Man is able within limits to increase the food supply to satisfy increasing population. Some think that the agricultural ants can do the same; but no other animals.

From the title of the paper I had hoped that it would more largely deal with General Booth's plan for crowded cities. Darwin's theory has been misapplied among scientific writers to the extinction of philanthropy. They say that the real remedy for the horrors of crowded cities is to let the helpless die off as soon as possible, and that you aggravate the evil by your charities. This, we believe, has not been the lesson taught by well-directed charity, such as Booth advocates. He wants what might be called facilities for co-operation brought close to the poorer classes: this is the principle so ably advocated in the paper. I have seen something of the poor classes, and I have found more sympathy with each other, and more readiness to help each other, than I have seen among richer people. Early in this century a commission of the British Parliament made the remarkable discovery that in charity-loving Scotland the greatest amount of charity was exercised, not by the rich towards the poor, but by the poor towards each other. This is the spirit which Booth's plan seeks to foster, and which Dr. McLane so strongly enforces.

The theory that sex is founded on force is impossible so far as we consider the fundamental distinction rather than what are known as secondary sexual characters. The phenomena of sex are so closely parallel in animals and plants, that the same explanation of its origin must hold in both, and the idea of force will not apply to the plants. Recent discoveries seem to point to the theory that the chief distinction is one of nutrition; the large, well nourished tadpoles becoming in most cases females, and the more impoverished ones males.

THE CHILDREN OF ADAM.

[The Annual Sermon delivered before the American Institute of Christian Philosophy, August 9th, 1891.]

By S. D. McConnell, D.D., Rector St. Peter's, Philadelphia.

And the Lord God said, Behold the man is become as one of us to know good and evil.—Gen. iii., 22.

THE mark of Christian philosophy is that it is practical. Secular philosophy is content when it has found an answer to the problems which it raises. Christian wisdom is not content until it has translated knowledge into conduct. The Institute of Christian Philosophy, then, has for its final purpose to produce *right living*.

In response to the courteous invitation of that society that I should speak to them to-day, I beg to lay before them some considerations upon the elemental problem of conduct. What is the intrinsic moral quality of us sons of Adam? What may be expected of us in the way of right living? And why?

A well-known writer in a well-known review lately made this statement:

"It is easy to see that the 'New Theology' is about prepared to join hands with Darwinianism, and obliterate the doctrine of the Fall as underlying the fact that 'the Word was made flesh.'"

It is the peculiarity of the "New Theology" that no one is officially authorized to speak for it, but I venture to think that the above statement will be silently admitted by those who are under its influence as being substantially true.

I venture also to say why this judgment is accepted by those in whom it has reached the distinctness of a judgment.

The existence of moral evil is not denied by any.

There are in the field three theories as to its origin and nature. Of course these theories are not held distinctly and unmixed. The same person may, and in point of fact, often does, hold mutually antagonistic fragments of different theories in doc-

trine and philosophy and may be as strenuous in support of one part of his contradictory creed as of another. But in the case before us the three theories are easily separable, in thought at least.

(1) The first is that of what for convenience's sake may be called "orthodoxy."

According to it there was, long ago, a primeval world which was a paradise. It had a genial climate and a fertile soil. No ice-bound oceans or burning deserts, no thorns or brambles, no predaceous beast or pestilential wind, was there. The world was young and wholesome. No nerve had ever thrilled with pain, nor any living creature looked upon the face of death. The plains were smiling with perennially golden grain, and the forest bountiful with pendent fruit. In this paradise God walked, and was lonely. In it He set the newly-fashioned Adam, the first individual of his race. Into his arms He graciously gave the maiden mother of us all. He created them immortal. Their wisdom was transcendent; their innocence absolute.

But with Adam God made a covenant. The matter of the agreement was, that perfect obedience and unbroken righteousness would be rewarded by continual bliss, and warranty against pain and death; and that for disobedience the punishment should be capital. The parties to the agreement were God of the first part, and Adam the party of the second part. Adam did not enter into the covenant for himself alone, but as the representative of all his race yet unbegotten. They were to have their chance in him, and to stand forfeit if he failed.

(Whether the covenant were to remain in force eternally, or whether, after a certain time passed in obedience, he was to have been confirmed in an indefeasible right, does not appear.) The simple test for the first man's power of moral endurance was to be his abstention from a certain attractive kind of fruit in the garden where he dwelt. An insidious tempter appeared from some unknown and unsuspected quarter, enlisted the more pliable nature of Eve on the side of disobedience, and through her broke down the moral resistance of man. He failed in the test, and catastrophe unspeakable was let loose! Smitten suddenly with shame and pain, the offenders crept away, already moribund.

The voice of God rolling in thunder discovered their hiding-place. The flashing lightning of an offended heaven burned between them and their bower. The jealous earth shot up from her bosom the "upas and the deadly nightshade" among the kindly forest, and choked the wheat with thorns and brambles. The wild beasts, filled, for the first time, with cruel rage and hunger, rent and devoured one another. The natures of the offenders themselves underwent a sudden ferment, which left them transformed and totally depraved. Their unborn children not only inherited the taint, but were bound by all the penalties appended to the original contract broken by their father and representative. Thus death, physical and moral, the depravity of every son of Adam, and all the thousand ills that flesh is heir to, both in this world and in any world yet to come, are all the outcome of that transaction which, in popular religion and in technical theology, is named "The Fall." Most Continental and American theology is based upon this notion. So unconventional a thinker as Dr. Bushnell has a strange chapter induced by the theory. If death literally came by Adam, how then to account for its undoubted dominion over the lower animals for æons before Adam was made? The "dragons weltering in their prime" lived by tearing one another, and were so equipped by nature that they could not live otherwise. Dr. Bushnell, seeing this difficulty, hits upon the ingenious theory of what he calls "the anticipative consequences of sin."* That is, the sin which was to be, cast its shadow backward, and covered the earth from its beginning.

The theory before us cannot be more clearly stated than in the words of the "Larger Catechism" appended to the Westminster Confession of Faith: "The Fall brought upon mankind the loss of communion with God, His displeasure and curse, so that we are by nature children of wrath, bond slaves to Satan, and justly liable to all punishment in this world and the world to come."

Now, whence came this notion? In the Old Testament there is no allusion to it whatever. There every case of moral obliquity is referred to the deliberate and wanton choice of the per-

* "Nature and Supernatural," ch. vii.

son offending. His fault is never modified, or the quality of his guilt deemed to be affected, by his relation to Adam. He is in every case accounted worthy or blameworthy not for what he is *qua* man, but for what he does of his own choice.*

The "Fall" is never referred to by Jesus in any form. If His words and precepts stood alone in the New Testament the transaction would be overlooked completely. He concerns Himself with the springs of human conduct as they exist now. He uncovers and fortifies new and obscured motives. He refers righteousness to the indwelling of the Spirit of God, but never refers sin to the indwelling of the spirit of Adam.

In the Apocalypse, which unfolds the last scenes in the drama of humanity, there is no reference to a great catastrophe at its beginning, and the *dénouement* would seem to be incompatible with such a first act.

The Catholic Creeds are entirely silent concerning it. The Articles of the Christian Faith, assent to which is a condition precedent to membership in the Christian Church, have nothing whatever to say concerning the transaction known as the "Fall."

From all this it seems evident, that if the "New Theology" sits somewhat loosely to this theory, it does not thereby argue itself to be irreverent towards the highest authority or indifferent to fundamental truth.

The portion of Christian Scripture by which the theory has been always upheld is in St. Paul's Epistle to the Romans, the fifth chapter, beginning at the twelfth verse. To the untheological reader the meaning is sufficiently evident. The propagandist of the new faith declares that his principal, Jesus of Nazareth, is of divine origin, and has moral relations with every human being. But, just as all men are affected by the character and actions of their original ancestor, "Adam," so the whole race stands affected by the character and actions of the second "Adam." This seems to be all that the writer had in mind. He is concerned with the position of Jesus, and only uses the accepted story of Adam as an illustration and analogy, good for what is good. But instead of being allowed to remain in the

* Edersheim: "Life of Christ," vol. i., book 1, "It is entirely unknown also to Rabbinical Judaism."

subordinate position of an analogy, it has unfortunately been elevated into a capital position among Christian dogmas.

The history of the dogma is, in rough lines, easily traced.* It was developed by that great system builder, Augustine. It passed, together with the rest of his theology, into general acceptance in the Western Church. It was elaborated into curious detail during the busy idleness of the scholastic period. Dante popularized the story of the Edenic Paradise for the Latin races, as did Milton for the English-speaking people. Luther, the Augustinian monk, brought the theory with him from his cloister. Calvin accepted it from his master Augustine, and made it the starting-point of his system. Through these various channels it has come since the Reformation into the popular mind to be the accepted Christian teaching concerning the moral status of man.

That the theory, both in itself and in its consequences, is entirely untenable would seem to be evident from merely stating it. It is so well intrenched, however, that more than this is necessary. To any one who has come under the influence of that mode of thinking known as evolutionary, such a catastrophe as that of the "Fall" is *à priori* incredible. Such a thing is out of analogy, both natural and spiritual. On the face of it (if it be so read), it is a case of sudden and violent degradation interjected between two periods of steady progress. Up to the date of the "Fall," and from that date forward, the progress is undenied. Instances of degradation, both in individuals and families, are very common, but they differ from this alleged one in that they are slow, final and irretrievable. Their subjects are left stranded on one side of the stream of progress. There is no farther use for them, and they cease to be. The Miltonic "Fall," on the other hand, is sudden, inconclusive, and the penal cause assigned is no sufficient *rationale* in the absence of any moral or religious obligation to accept the fact. The "total depravity" supposed to have been the consequences of this transaction is not a fact, and never has been. A human being without inherent moral goodness—inherent in the same way as his humanity itself—is something no one has ever seen. It has been imagined in technical theology, but its actual counterpart is to be looked for, not in any man or

* Hagenbach: "History of Doctrine," p. 59.

woman, but in Mephistopheles or a Houyhnhnms. Apart from the somewhat artificial language of the pulpit, neither the idea nor the fact ever occurs.

The associated dogma of inherited guilt is practically obsolete also. True, it survives in the standards of some Christian bodies, but it has ceased to be a conviction to which one may appeal to influence conduct. What preacher would dare to assert boldly, "You deserve to be damned, for you share in Adam's act of disobedience"?

The dogma is no longer held on the authority of Augustine, or rejected with Pelagius; it has simply fallen out of sight in consequence of its intrinsic unworthiness and essential immorality. The "New Theology" does not accept it or reject it; it passes it by.

(2) The theory has in some quarters been rudely displaced by another, which seems to be radically opposed to it. Indeed, the place occupied by it is the one most strenuously fought for by all the forces at present in the field. The Theist, the Secularist, the Evolutionist, or the Christian,—whichever one is able to capture and hold this ground,—possesses the key to the battle of modern thought. What is the ground and origin of human right and wrong? Whoso holds the key to this will win the battle. For, practically, men value morals above all else. It is admitted on all hands that the sense of right and wrong does exist, and that it is, in its degree, at any rate, the distinguishing mark of man. But the real question is, "Whence comes it, and in what consists its binding force?" Those of the extreme Left say it is an original endowment of man from God, formerly perfect, but now shattered and untrustworthy. Those of the extreme Right say, without hesitation, that it is a faculty which has been slowly developed in man out of the interaction of himself and his fellows with their surroundings. In the crude barbarianism which they consider to be the original status of the race, certain actions were quickly found to tend to the general welfare, while certain other actions were found to work detriment to the tribe. The first sort of course tended to the popularity, and the second brought pain or danger to the individual producing them. The glow of satisfaction produced in the doer of helpful things en-

couraged him to the habit of such actions. Murder, theft, adultery, having been found to be dangerous to the community, were warmly reprehended. This public sense of dislike to the deeds reacted upon the individuals who felt it, gradually became fixed in each one, and was transmitted to his descendants. It had its origin in the public weal. It emerges, however, generations afterwards, in a permanent faculty, which, as Mr. Martineau says, "had lost its memory and changed its name." Nor has it remained the simple faculty it was when it first became self-conscious. Long afterward it, in Mr. Matthew Arnold's happy figure, came to be touched by the fire of emotion, and burst into the flame of religion. Since the death of the late Professor Clifford, this theory has not had another so able and uncompromising an advocate. With certain modifications due to his more cautious and judicious habit of mind, it is the doctrine of Mr. Herbert Spencer. In popular scientific periodicals it is assumed to have been demonstrated. It has found a lodgment in the text-books of schools. It is the basis of action for "Societies for Ethical Culture." The theory is claimed to be, in Professor Clifford's language, "a scientific basis for morals." That very prevalent habit of mind which abhors an unsolved problem as nature abhors a vacuum, receives and rests upon it with peculiar satisfaction. Wherever this theory and the popular notion of the "Fall" are sole rivals claiming entertainment by educated men, this one is almost certain of a welcome.

And this, notwithstanding the fact that it is attended by the very gravest difficulties, both scientific and moral. The more sober-minded evolutionists, whether Christian or secular, do not accept it. They do not consider it scientific. The facts in the case cannot be co-ordinated under it. The savage state where the conscience is supposed by the holders of it first to emerge is precisely the place where the possessor of moral sensibility would be most unfit to survive. Where might is right, right is doomed to death. Among unmoral creatures, any variation in the direction of morality tends toward the extinction of its possessor. The faculty coming into existence there is compelled by the exigency of the case to commit hari-kari. It is "too good to live." "The survival of the fittest" is an irrefragable

law, which may not be suspended even in the interest of moral theory.

Then, again, the induction upon which its advocates base the scientific theory of morals is open to the grave suspicion of having been arranged in the interest of the theory. In the nature of the case the facts are difficult to come by, and one cannot help suspecting that the same skill (as of Sir John Lubbock, *e.g.*) which arranges them in one way could just as easily sort and arrange them so as to produce an entirely different result. Within the historic period, at any rate, there has not as yet been forthcoming any instance of a tribe or people making moral advance without the aid of light brought to them *ab extra*. In many instances a very high degree of civilization has been attained to by their unaided development. A Venus di Milo, and a code of Roman Law, have proven themselves to be within reach, but not a Sister of Charity, or a John Baptist.

Present facts are also against the theory. There is no constant relation between knowledge and goodness, nor is there any evidence of a tendency now on the part of the vicious to learn righteousness by the bitterness of their experience in sin. The theory, indeed, is discredited by the eagerness with which the chronic wrong-doer accepts it. Anarchists, Socialists, Ingersollites,—the whole ignoble company of questionable morality—hail it as truth. One cannot avoid the feeling that it is, at least in part, welcome because it lightens the stress of moral obligation. The charge of Lacordaire would seem to be at least colorable, that "it consoles us for our vices by calling them necessities, bringing in as a witness to this a corrupt heart disguised in the mantle of science."

(3) But the two theories above indicated are not the only claimants to a hearing upon the question of the moral progression of man. A third, contained compendiously in Genesis ii. and iii., and writ large in the whole Christian Scriptures, we believe.

The story in Genesis is too familiar to need rehearsing. It will suffice to point out that it assumes to be a distinct account of a veritable occurrence. It is sharply separated from what precedes and follows in the narrative, though evidently related

to both. Like the portion of the story which precedes it, it moves with majestic stride, an æon in a paragraph, with space for a year of God's days between verses. It is couched in a language so Oriental and so poetic that even Augustine warned against dangerous literalness here.

The first chapter, and to the fourth verse of the second, sketches the whole of creation, from the chaotic nebulous mist to the introduction of the creature fashioned in the image of God, which is called "Adam," *i.e.*, man. This sketch is the mighty frame into which all that comes after is to be fitted. This having been completed, it proceeds to recount the history of the creation in which the whole long-drawn movement has culminated. It refers most briefly to the preparation of the earth to his use,* connects him as to his physical side with matter,† endows him with life,‡ and then enters upon the history of the developments of man's moral and religious life, which is the subject matter of the Old and New Testament Scriptures. This progress is conceived to be by a series of continually recurring selections. The first of these is recorded in the story before us. There is no intimation there that "Adam" and "Eve" were the absolute beginning of the race. There is nothing in the word Adam to indicate whether it means man, or is a proper name for an individual. It may mean either. In point of fact, it is used in both senses —as the word "day" is used both for the whole time covered by the creative process and for one of its periods. For the writer of Genesis, having for his purpose to narrate the moral development of the race, it was sufficient to begin where that began. To this end he states that God took a man and a woman (*i.e.*, a family), set them in circumstances where the new faculty with which He endowed them would have its proper and necessary environment. That this selection left to the natural process of degradation those who were not chosen would seem probable from the following considerations:

1. It is in the analogy of God's method of dealing with men since history has recorded the same. Thus Genesis occupies itself only with the fortunes of Seth and his line. Cain, his brother, is permitted to wander to the land of Nod,‖ where he founded a

* Gen. ii., 5. † Ib. 7. ‡ Ib. 7. ‖ Gen. iv., 16.

nation,—a nation which passed through the stages of pastoral life,* concentration in cities,† developed the industries, blossomed into art, burst into music,‡ and then passed forever out of sight and hearing.

Abraham is selected from his Acadian followers, while they are left to complete the cycle of a civilization untouched by any divine Spirit, and then sink into their decay. Isaac is taken, and Ishmael is left, Jacob is chosen, and Esau rejected,—and so following. "One shall be taken, and the other left" seems to have been the method of God's procedure always. Selection implies a corresponding rejection. The Bible is as remorseless as science itself. For the purpose of Scripture, moral fitness is the test. The calling of Adam would seem to be only the first of many such selections, not differing in kind from that of Abraham.

2. In certain obscure nooks and corners of the earth, there exist small groups of creatures, which, while among men, seem not to be of them.‖ They have in their persons and their languages traces of better days. They seem to have been left stranded on the stream of development. So low in the scale of intelligence, so destitute of moral sense, are they, that it is difficult for one to look upon them and believe that they belong to the race which has the first Adam at its start and the second Adam at its culmination.

3. Traditions of the "Fall" are only found among those whose ancestry can be traced to a common origin, or who have come in contact with the race of Adam at some point in their history.

A family is chosen by God, and led by His providence into a fertile and well-watered country,¶ rich in gold and precious stones,§ surrounded by the flora and fauna** which are the concomitants always of civilization.†† In these surroundings occur

* Ib. iv., 20. † Ib. iv., 17. ‡ Ib. iv., 22.

‖ For example: the Bushmen, the Australian aborigines, the Veddahs of Ceylon, etc.

¶ Gen. ii., 8. § Ib. ii., 12. ** Ib. ii., 9, 20.

†† It seems hardly necessary to point out that "Garden" in this connection is a misleading term. The idea of extremely limited space, which the word conveys, is foreign to the story. "Paradise," in its classical use, is better. The idea is, an expanse of park-like territory.

that chapter in human history which, whether relatively or absolutely the beginning, is, at any rate, a supreme epoch. It is the beginning of human religion.

The story sounds far away and strange. To one who is accustomed to the precision of modern scientific statements, it even seems grotesque,—an echo of the childish stories of a youthful world! Taken broadly, however, it manifests an insight which on any theory, save the Christian, it would be folly to look for in such an early time. It rests morally upon those clear foundations where the broad *communis sensus* of intelligent and upright men instinctively look for it. It declares:

1. A personal God who can speak.
2. A human faculty which can hear.
3. A power of will which can choose.
4. That the essence of wrong-doing consists, not in damage to the community, but in disobedience to God.

This new family of Adam, alone of all creatures having reached the stage of knowing right and wrong, have their new-born faculty nourished and developed by food convenient and in a fit environment. In the garden of the world they feed upon the fruit of the "tree of knowledge of good and evil." "Forbidden" fruit it is indeed,—food which may be eaten only at a dreadful risk. Knowledge brings judgment always, and must pay the price of its being. When moral faculty rises to the state of self-consciousness, brute-like innocence is left behind forever. The way of return is closed as by cherubim with fiery swords. Profound degradation is possible thereafter, but not along the lines by which the creature came.* He can move downward but not backward. His fellowship is no longer with the gentle creatures of the garden, whose nature he heretofore shared, but with their Maker and their God.

"And the Lord God said: Behold the man is become as one of us, to know good and evil. And now, lest he put forth his hand and take of the tree of life and live forever, therefore the Lord God sent him forth from Eden; and He placed at the east of the garden Cherubim, with flaming sword which turned every way."

* "Degradation," E. Ray Lankester.

"And so I live, you see,
Go through the world, try, prove, reject,
Prefer, still struggling to effect
My warfare ; happy that I can
Be crossed and thwarted as a man,
Not left, in God's contempt, apart,
With ghastly, smooth life, dead at heart,
Tame in Earth's paddock as her prize!"

Of the outcome of the transaction there can be no doubt. It was clearly great pain,—maybe a falling short of the best then possible, but clearly a rise above what went before. Something better did come into the field of moral vision even then. The "Tree of Life," the possibility of immorality, was there. But it came into sight only a long way off and out of reach. Only as a memory and a hope did it survive in the tedious steps of progress, until, in the fulness of time, the perfect Man "brought life and immortality to light."

Moreover, there comes crawling upon the stage the wily, ignoble representative of moral evil. When man emerges as a moral being, he must take his place, perforce, in the league of spiritual states. He has thenceforth to do with many interests. He is a "being of large discourse, looking before and after." It is no fantastic Oriental conceit which introduces Satan to the first man who could comprehend his forked speech. That man must confront the Eternal Nay in virtue of his station. The doctrine of supernatural evil is developed in the Christian Scriptures *pari passu* with the process of redemption. The Christian smiles when he hears the fact of such existence called in question. He is quite aware that in the secular creed there is no Prince of Darkness. But he knows also that there be a thousand things not dreamed of by that philosophy. He reads hopefully the obscure prophecy of better things to be attained through much pain, by the seed of the woman, and he knows that much of that evil is neither brute nor human. If it were, he should despair of the race at the outset. His solace and his ground of hope, when the brute within him is turbulent and the spirit of man is overladen, is the consideration that "it is not I, but sin that dwelleth in me."

The first of these theories, briefly sketched, is propounded by

the popular and *soi-disant* "Orthodoxy"; the second by the Athenæum; the third by the Christian Scriptures. The first is moribund. The second is dangerous. The third is substantially true. Make what allowance one will for the obscurity, the puerility, of the story, the fact still remains that the moral progress of the race has been but the developing of the picture there sketched in broad outline. He whose way of thinking has been most profoundly impressed by the great thought of Evolution comprehends it best. He finds himself caught in the sweep of a majestic movement similar in kind to that which he has followed from the monad to the man. Here again, as at other times, the progress halted, either helpless or at fault, and God vouchsafed the gift of a new motive force. Here His gift is nothing less than the inbreathing of His own spirit. It endows its recipient with that divine quality in virtue of which he is capable, under suitable conditions, of being "born again." It accounts for the complex and contradictory impulses which contend in the arena of the soul. It accounts for the old man as well as the new. It tells him the name and origin and limitation of the strange tempter which whispers in the secret chambers of his heart. It brings him in sight of immortality, and bids him long and strive mightily therefor. It bids him work amid briers and thorns; but when he lifts up his face he hears that "he has become as one of us." It binds him to God. It gives him sanction for conduct and hope for infinite progression. It sets him in the sweep of a dramatic movement. It accounts for the faults of the patriarch, for the faith of the apostle and the faultlessness of the Perfect Man.

OF THE ORIGIN AND POWER OF RELIGIOUS IDEAS.*

By Prof. M. J. Cramer, A.M., D.D., East Orange, N. J.

INTRODUCTORY REMARKS.—Psychologists ascribe to man three fundamental powers: The Intellect, the Sensibilities, and the Will. The entire soul-life in its multifarious manifestations and activities consists in them. But before the soul manifests itself through one or all of these powers it reveals itself to itself through the inner sense, *i.e.*, through consciousness. In the whole nature of man, where all is mystery, there is nothing more mysterious than consciousness. It may be defined as the immediate perception or knowledge of self, of our existence, and of the state in which we find ourselves every moment of our lives. Let us not ask how or whence we have received this knowledge; for in order to explain our consciousness we must go beyond or behind it, which is utterly impossible. Even if we use the term consciousness in the broader sense given to it by the German philosophers, as denoting the immediate or intuitive and undiscriminated knowledge † of both the subject and the object, of the I and the not-I, we are, nevertheless, utterly unable to explain its origin. It is, and will probably forever remain, a mystery. And herein, too, we find the reason why the facts of consciousness are incapable of proof. They are immediate or self-evident truths; hence they force themselves upon the mind with a power and an authority that are absolutely irresistible, and thus render all demonstrations unnecessary. These facts, or self-evident truths, constitute the foundation of every other truth; for every demonstration must be based upon premises known to be absolutely true; but when we go back

* During the session of the summer school of the American Institute of Christian Philosophy in 1890, Dr. Cramer read an able paper on "The Influence of Theology on Science and Philosophy"; in some unaccountable way the manuscript was lost before it reached this office. The present essay is kindly substituted by the author. —Editor Christian Thought.

† Vid. Harris, S., "The Self-Revelation of God," p. 30.

from premises to premises, we finally arrive at ultimate truths, unsupported by any other truths, *i.e.*, the facts of consciousness. And as the seed contains potentially the tree with its leaves and blossoms and fruits, so our consciousness contains potentially all our intellectual processes.

In or with our consciousness begins our intellectual life ; it accompanies us through our entire earthly existence. The clearer and the more active it is, the more intense is our life. All our progress is only a development of the aim or object of our existence,—an unfolding of its astonishing capabilities and richness. What is true of individuals is also true of mankind as a colossal being. The great men who made an epoch in the intellectual history of the human race:—what were they but the interpreters of the consciousness of mankind, or, at least, of the nations who gave them birth ? And this is the reason why eminent thinkers, who stood in no relation with each other, have often happened upon the same ideas or made the same discoveries, for the consciousness of mankind at those times had reached a degree of development where these ideas or discoveries had to come, by a natural process, to the surface and spring into a blossoming and fruit-bearing condition.

This leads us to a thought of great significance. As the physical organism of each man is related to external nature, so there is a similar connection in the realm of intelligence. Each man, as an intelligent being, stands related to every other man. Only by coming in contact with other men does his intelligence awaken and begin to unfold its sublime faculties. The words and thoughts of others enrich his own mind and suggest other thoughts. Thus each succeeding generation enters upon the intellectual inheritance of every preceding generation, and thus all form one realm of intelligent beings,—one intellectual organism. And, as we find in the entire organism of nature the principle of unity, so, also, do we find in the intellectual cosmos the principle of unity, namely, the idea of the Absolute Being, the eternal, unchangeable Being, the Creator of all things, the ultimate Cause of the universe, the Source of all life, the Supreme Guide and Disposer of the destinies of all intelligent beings as well as of the physical cosmos.

I. (*a*) We have just now said, that just as there is a principle of unity in the physical universe, so we find a similar principle of unity in the spiritual realm, namely: The idea of the Supreme Being—of God. This idea of God, what is it? And whence does it come? It is the underlying principle of all truth, the solution of all problems, the supplement of all science, the interpretation of all philosophy, but at the same time also the limit of all thought and investigation. Streams of light are continually flowing from this idea, illuminating all intelligent beings; nevertheless it is veiled in an impenetrable mystery, before which the human mind bows with holy reverence, without being able to fathom it. And yet man, in the gradual development of his inner life, arrives necessarily at the idea of God; and this idea is the indispensable supplement of all his knowledge; it is a fact of his consciousness; it is the immediate knowledge he has of God, and it becomes thus a subjective-psychological, ethnological, and historical fact.*

Even in the child the immediate God-consciousness already exists potentially, and is unfolded like the other facts of consciousness.† True, the conditions of this development are: proper education and association with other intelligent human beings, just as it is the case with all other intellectual faculties. And thus we find the idea of God, or the God-consciousness, as a universal fact among all peoples;‡ though among uncivilized and savage tribes its development has been retarded, and it awaits the labors of Christian missionaries for its complete unfoldment and intensification.

(*b*) Indeed, the great truth expressed by King Solomon,‖ that "the fear of the Lord is the beginning of wisdom; and the knowledge of the Holy One is understanding," remains forever a

* Vid. Paul Gloatz, "Speculative Theologie," vol. i., p. 93; also A. M. Fairbairn, "Studies in the Philosophy of Religion and History," pp. 2–13; also S. Harris, "The Self-Revelation of God," pp. 30–33.

† Vid. Gloatz, "Specul. Theol.," vol. i., p. 94–95; Comte, "Cours de Philosophie Positive," vol. v., pp. 30 ff. Comp. Psalm viii., 3. (We desire to say here that we do not pretend to discuss the many theories concerning the origin of religion, but simply to state and briefly to elucidate our own views on this subject.)

‡ Vid. Pfleiderer, "Religionsphilosophie," 2 edit., i., 17 ff.

‖ Prov. ix., 10; Comp. Ps. iii., 10; Job. xxviii., 28.

great and eternal truth. Without a knowledge of the true God, true wisdom is as unattainable as "eternal life."* In general, we must not forget that all true intellectual progress is nothing more than the unfolding of what originally lay in germs in the human soul. The consciousness (and this is a point upon which we cannot lay too much weight) contains potentially all truths which we are able to comprehend ; for all are based upon the facts of consciousness. Meanwhile, the mind at first does not know the riches that lay concealed in the consciousness ; its facts are dormant and surrounded by darkness ; but the mind gradually masters them, submits them to reflection, analyzes and compares them with each other, and explains them by its own experiences and those of others ; thus elaborated and set forth in their true light, these facts will again present themselves to the consciousness in the form of definite ideas, or conceptions, or truths, which constitute the bases of all other truths obtained by investigation and thought.

II. (*a*) From the preceding observations we are justified in drawing the inference that the idea of God—religion—has its origin and source in the depth of the human soul. It is not an arbitrary invention ; it does not come to man from without ; it is to him no mere accidental occurrence ; it is not in his power or pleasure to have it, or not to have it ; religion is to him an absolute necessity, whatever its form may be ; for it lies in him; it originates in the depths of his being ; it is an indispensable component part of his inner—spiritual and intellectual—life. The conditions and circumstances in which man finds himself may either quicken or retard the development of his religious ideas, but nothing in the world can kill them or destroy his faith in a supernatural power. The immediate sense of religion and morality is in him, whatever position he may occupy, whatever events may happen in his life, or whatever may be the results of his reflection or of his course of conduct ; he is always and everywhere compelled to recognize the difference between good and evil, and to value virtue and despise vice and crime ; and this not because the moral law is something that has come to him from without, or is given or taken away by mere chance,

* John xvii., 3.

but because it is something absolutely necessary to him and deeply inherent in his spiritual nature.

(*b*) Religion, therefore, has its source in man ; only by means of this principle are we enabled to explain its universality, its indestructible essence, and the immense power and influence which it has exerted at all times, and is still exerting upon individuals, as well as upon tribes and nations. The theory that rude fears of certain natural phenomena and frightful dreams of anthropomorphous animals caused primitive man to look to and revere powers outside and above him, and thus to form a religion, lacks proof, and does not account for the universality of religion ; and the other theory, that religion is an invention of priests, or poets, or rulers, is so manifestly superficial and unsatisfactory, that it cannot stand severe scrutiny and earnest investigation ; nor does it account for the fact that religion is found among all classes of men, ancient and modern. Nor is the theory valid, that whatever knowledge man possessed of religious ideas or of God had come to him through a supernatural revelation ; in reality it does not at all account for the origin of religion, for how could man receive and understand the contents of a supernatural revelation, if he had felt no need of a religion, or if he had no previous knowledge of religious ideas—of God ; or at least no inherent faculty to receive such knowledge ? If there had been no such inherent faculty, religious instruction by means of a supernatural revelation would have been forgotten as soon as such instruction had ceased. We could not comprehend how such knowledge could be propagated from one generation to another and from one tribe or nation to another, if a corresponding faculty had not been an original or component part of universal man. Sincere and careful minds, in view of all the facts surrounding the case, cannot but come to the conclusion that the origin of such a tremendous phenomenon as religion must be sought in man himself—in the depths of his consciousness.*

III. (*a*) The realm of religion, therefore, is the human race in

* Vid. Benjamin Constant, "De la Réligion," tom. I., cap. I.; also, Fairbairn, "Studies in the Philosophy of Religion and History," pp. 6-9; also, Harris, "The Self-Revelation of God," chap. II.; also, Herbert Spencer, "First Principles," pp. 13-17; also, Pressensé, "A Study of Origins," p. 465; Ladd, "Introd. to Philosophy," pp. 357-61.

its totality. We may easily convince ourselves of this fact, if we do not limit religion to this or that form, in which it may be clothed, but apprehend it in its essence. The forms of religion vary almost *ad infinitum;* some of them are strange, others complex, and still others contrary to sound sense and reason. Volumes might be filled by describing and explaining the various forms of religion, ancient and modern ; but to make an attempt to do so even in outline does not come within the scope of this paper ; but this much may be said without fear of a successful contradiction, that wherever man has raised himself above the wildest savagery, there we find him penetrated with those ideas and convictions which form the basis of all religion.*

(*b*) There have been travellers and explorers who say that they have found tribes without religious rites or ceremonies, in short, without any religion whatsoever ;† but the same travel-

* The universality of religion has already been recognized by the poets and philosophers of antiquity. Homer (Odyssey, III. 48) says: "Πάντες δὲ θεων κατέους' ἀνθρωποι" —"All men long for God." Melanchthon thought this verse the most beautiful in all of Homer's writings. Aristotle (De Coel., I., 3) says : "Πάντες ἄνθρωποι περὶ θεῶν ἐκουσιν ὑποληφιν"—"All men have a conception of the gods." Cicero, in his philosophical works, refers frequently to this subject; thus, for example, he expresses himself (in Natur. Deor., I., 16) as follows : "In omnium animis deorum notionem impressit ipsa natura; quae est enim gens aut quod genus hominum, quod non habeat sine doctrina anticipationem quandam deorum ?"—"There is no man, no people, in whose minds there dwells no notion of or faith in the gods," etc.; "many there are," Cicero continues, "who ascribe many bad things to the gods, but only in consequence of their own immorality; all, however, agree in this, that they recognize a divine nature and power." Seneca, too, agrees with this view, when he says (Epist. 110 et 117) : "Deos esse inter alia sic colligimus, quod omnibus de iis opinis insita est," etc.— "The universality of an opinion on the existence of God is a proof of its truth; hence we infer, among other things, the existence of the gods from the fact that faith in their existence is inborn in all men, and that there is no such lawless and moralless nation that does not believe in several gods." Epicurus, too, recognized the universality of religious faith, and the Epicurean, who hated a "*curiosum et plenum negotii deum*," held that fear had created the gods (Cicero, De Natur. Deor., I., 20–23). Lucretius, in the fine invocation of *Alma Venus*, with which his poem opens, shows what a fascination the idea of the divine had for him. Pindar, a devout Greek poet (in Nemea, VI., 1-3), attributes a common nature and parentage to gods and men, when he says :

Εν ἀνθρῶν, ἓν θεῶν γένος ἐκ
μιᾶς δὲ πνέομεν
ματρος ἀμφότεροι.

† Certain tribes may have appeared to some travellers and explorers as being without a religion, as, for example, the nomadic tribes between Ob and Jenisei ap-

lers and explorers, in evident contradiction with themselves, report of the same tribes, that they have certain superstitious customs which point to the existence of certain religious ideas, however confused they may be ; for superstition in man presupposes faith in higher powers, hidden and beyond this world, in whose hands are the destinies of men.*

(*c*) Religion, then, being found among all tribes and nations mentioned in history, as well as among those now living on the earth, so far as they have been investigated, the inference is justified, that in the future no people will be found destitute of religious ideas ; for an induction based upon so large a number of incontestible facts becomes a certainty. And further, when among all men, both of antiquity and of modern times, irrespective of the great difference between them in their respective degree of culture, a fact or phenomenon of such tremendous power and influence as that of religious ideas is found and repeats itself in each successive generation of the human race, it

peared thus to Adalbert von Chamisso, and the Pampas, the Lenguas, Mbajas in South America to M. d'Azara, and to later ones certain tribes in Australia. Roskoff, in his work, "*Die Religion der rohesten Natur-Völker*," passes in review all tribes that had heretofore been regarded as "religionless" and shows that even they are not entirely without a religion. And Sir John Lubbock, too, an opponent to the Bible, who maintains that the primitive savages were without religion, makes this concession : "If sorcery and witchcraft is taken for religion, then it would be difficult to maintain that savages had no religion" ("Prehistoric Times," II., 293). Again he says : "If a feeling of fear, and the consciousness that besides ourselves there are other powerful beings, constitute religion, then we must admit that religion is common property of mankind." Darwin, too, recognizes in uncivilized peoples a minimum of religion in the form of animism (Desc. of Man, I., 55). Prof. Caspari, in his work, "*Urgeschichte der Menschheit*," denies the existence of tribes or peoples without a religion as an impossible thing, just as he denies the possibility of the future being without religion. Quatrefages (in "The Human Race"), Tylor (in "Primitive Culture"), Peschel (in "*Völkerkunde*"), Max Muller (in "Origin of Religion"), Spiess (in "*Vorstellung*," etc.), Gloatz (in "*Spekul. Theol.*") maintain the universality of religion, as do many other scholars of note.

* There were also philosophers in ancient times, who doubted the universality of religion; see Cicero, "*De Natur. Deorum*," *I.*, 23. Among modern philosophers we mention Hume, who in his work, "Natutal History of Religion," maintains that there are tribes, among whom no traces of religious faith or religious customs are to be found; but the reports of those travellers and explorers, upon whose testimonies he based his assertion, have been contradicted by more recent travellers and explorers. There can now be no reasonable doubt as to the universality of religion.

becomes evident, beyond all doubts, that the origin of such fact or phenomenon is not to be sought in accidental causes, but in man himself. This, then, confirms our theory and makes it an absolute certainty that the source of religious ideas and faith is in the depths of the human soul.

(*d*) Our theory is also supported by the indestructible nature of religious ideas and beliefs. The different convictions formed in man's mind, either by education and study, or by certain events and experiences in his life, or by the position he occupies in society, or by all these things, may take a deep hold on him and influence him greatly, but they are not indestructible ; by continued reflection, as well as by other causes, they may be either greatly modified, or entirely supplanted by others. But it is not so with the religious ideas of which we speak. Man may change them, but he cannot get rid of them. Through speculation he may go astray and assume anti-religious principles, but man's innermost nature resists them and compels him to return, sooner or later, to the faith in God and a future state. Frequently men were atheistic in their speculation, but believing, and even superstitious, in their every-day conduct. Irreligious principles may flatter one's vanity, but they make a most painful impression upon the heart.

It is well known how many men have been accused, unjustly, of being atheists, who, on the contrary, were distinguished by a deeply religious conduct. The reason of this strange phenomenon is, that intolerance is incapable of distinguishing between the forms of religion and its essence, hence those who deviate from the traditional forms of belief are frequently condemned as irreligious, godless, or unbelievers. Vanini was burnt, Spinoza was excommunicated from the synagogue and persecuted, and the German philosopher Fichte was deprived of his professorship at Jena, all under the plea of atheism, and yet Vanini, on his way to the stake, declared that a straw was sufficient to demonstrate the existence of God, and one needs only to read the works of the other two in order to be convinced that, notwithstanding the pantheism of the one and the idealism of the other, to which, in theory, they adhered, their souls were penetrated with religious feelings. Prof. Fichte, for example, gathered every evening

his wife, children, and servants around himself in his study for family worship, consisting in reading a chapter from the Bible, singing a hymn, and prayer. In his "Addresses to the German Nation," he spoke of a "divine government of the world." According to the views expressed in this essay, there can in reality be no atheists (ἄ-θεος) ; for, according to St. Paul, we—all men—"live and move and have our being in God"; hence we are everywhere surrounded by God and His works, and hence the impossibility of ἄ-θεοι.

IV. (*a*) We remark, in the next place, that the principle enunciated and elucidated in the foregoing pages respecting the origin of religious ideas is the only means by which can be explained the immense power and influence which religion has exerted upon all men in all times and climes. Not in vain have men everywhere and at all times regarded their religion as their highest good. Thousands, if not millions, have sacrificed their all, yea, their very lives, for their religious convictions; and how many have suffered the most cruel tortures and a slow, agonizing death rather than surrender their religious faith and practice!

(*b*) There is certainly nothing in the world which exerts so great a power and influence upon man as religion. Religious convictions, when they are true, clear and deep, pour a flood of pure light through the mind, kindling the sublimest thoughts, filling the soul, amidst all the vicissitudes of life, with a precious and permanent peace, and inspiring him with courage and energy that enable him to perform wonderful deeds or to practise an unselfish devotion to persons or causes truly sublime. But nothing confuses the mind and disturbs the inner life so much as erroneous, eccentric, and exaggerated religious ideas. Men have derived from religion some of the sublimest thoughts that became an ornament of humanity and inspired it to perform noble deeds and heroic action; but religious errors or false views respecting the essence of religion (taking often its form for its essence) have not only confused the minds of many, but have led them to commit the greatest crimes. If we could detect all the springs and motives that set human life and activity in motion, we would be soon convinced that none is so powerful as religious thoughts and feelings.

(*c*) But in order to comprehend the power of religious ideas, we must confine our observation not alone to their influence upon the individual, but we must especially notice their influence upon the great masses of the people. This influence is truly astonishing. Is it not religion that determines to a great extent the manners and customs of nations, their civil, political, and religious institutions, in short, their whole physiognomy, by which they are distinguished from all other nations? Let us glance at the most important nations of antiquity: the Egyptians, the Greeks, and the Romans. It is an undoubted historical fact that the peculiar character of the Egyptians was to a great extent the result of their religion; all their civil, political, and legislative institutions, and all the habits and customs of their domestic and public life are, so to speak, the reflection of their religion. It is their religion that has built those gigantic monuments, the ruins of which still produce astonishment and admiration in the minds of travellers. And if we compare these monuments with the religion of the Egyptians, we are forced to the conclusion that the former are the pure expression of the latter.

In studying the ancient Greeks, we find them less religious than the contemplative Egyptians; and yet we cannot fail to notice the great influence which their religion had exerted upon their State with its various institutions as well as upon the public and private life and character of the people. Perhaps the student of their history may be tempted to believe that, on the contrary, the individual character of the Greek has lent to his religion its peculiar stamp and genius. It is certainly not to be denied that his religious ideas were largely under the influence of the national character of the Greeks. Indeed, in no other nation, ancient or modern, is there to be found so much of reciprocity of influence between the State and religion, as was the case with the ancient Greeks; and if we were to measure the respective intensity of this reciprocal influence, we would probably have to admit that the superior strength was on the side of religion. The same may be said of the Egyptians. And in support of this fact, so far as the Greeks are concerned, we mention the cultivation of the Fine Arts by them; for there is, perhaps, nothing that expresses more directly the life of a people than

its art-productions. But what has caused the erection of their splendid architectural monuments? Who has inspired the masterpieces of sculpture that adorn them? And from what source have their poets drawn the wonderful images of their dramatic creations? All arts among the Greeks have proceeded from their religion; music, and even the dance, had with them a religious character. Can it, therefore, be denied that their religion contributed much towards forming their peculiar national character, by which they are distinguished? The same may be said, *mutatis mutandis*, of the ancient Romans, if it were necessary to produce more proofs in support of the truth of our theory.

(*d*) What is true of the nations of antiquity is also true of modern nations. For example, the Mahomedans are distinguished from the Christians by a character peculiar to themselves,—a character that is certainly the result of the peculiarity of their religion and their religious practices. Among Christians, too, there is undeniably a different spirit to be found among the Roman Catholics from that observed among the Protestants. And the existence of this different spirit is to be accounted for solely by the difference of their respective religious views and practices.

Prof. E. de Lavaleye, in his pamphlet, "*Protestantismus und Katholizismus in ihren Beziehungen zur Freiheit und Wohlfahrt der Völker*," proves in a striking manner the existence of this difference in Catholic and Protestant countries. The different forms in which Christianity is clothed exercise a powerful influence upon the character, the history, and the condition of nations. For example, let us compare Spain with Sweden. Whence come the ignorance and much of the misery which prevail in the former country notwithstanding its fertility and its glorious climate? Whence come the welfare, prosperity, and intelligence of the latter country notwithstanding its rough climate and unfavorable geographical situation? Had Spain, at the time of the Reformation, adopted Protestantism, it would to-day certainly be in a far more prosperous condition, its people would be richer and more intelligent, and it would play a far more important rôle in the family of nations than it does now. Sometimes a few principles are sufficient to give a man as well as a nation a character

peculiar to themselves and entirely different from others. Thus, the Quakers are Protestants, and yet they have a physiognomy that distinguishes them in a conspicuous manner from all other Protestants. The peculiar character of the Mahomedans, their manners and customs, their determined rejection of all innovations as well as their intellectual stagnation—are all these things not to be explained by the peculiarity of their religion? Whence come the extraordinary preponderance of the Christian nations over all other nations and the tremendous influence the former exert over the latter even in their internal affairs? Is it not owing to the ideas of the Gospel of Christ with which their minds and hearts are permeated and saturated, whether consciously or not? The three countries, England, Germany and the United States, are Protestant, and hence the richest, the most powerful, and the most influential countries in the world.

(*e*) Thus we see that it is their religion which impresses upon nations their peculiar physiognomy, and religion would be unable to do this if it did not form a part and parcel of the very life of a nation, just as it forms an integral part of the inner soul-life of every individual. Hence, too, it is that religion exerts a certain influence upon all manifestations of a nation's life. In all historical movements it plays an important part; its effects may sometimes be hidden, for the deeper religious convictions are, the less visibly they operate in these movements. If we look at the historical events only in a superficial manner, we may be led to believe that nations are guided solely by their respective interests and passions, but if we thoroughly investigate the affair, we will see in the more important events the influence, more or less direct, of religious ideas and sentiments. Hence, religion exercises a great influence upon either the progressive or retrogressive course which a nation may pursue. If now religion is pure, sublime, progressive, it will inspire the people with energy, perseverance, and intelligence, and lead it onward and upward in the path of progress and development; but if it is gloomy, superstitious, and favorable to the tyranny of a few privileged classes, then it will weaken the people's energy, lame its courage, exhaust its strength, deliver it into physical and intellectual bond-

age, stop its progress and compel it to go backward in the path of civilization.

V. (*a*) From the preceding considerations we draw an inference of extreme importance, namely, that from religion alone, that is, from the true religion, all true progress of the human race may and can be expected. This truth, though it is to-day strangely ignored, is confirmed by the history of past centuries. All the best movements of the human race and all its true progress have been prepared, inaugurated, and determined by (the Christian) religion. Why, then, may we not infer that from this religion, properly understood, all further progress of the human race in the future must come? Shall we, too, like so many others, expect a real amelioration of the condition of suffering man from mere material improvements? But independent of the (Christian) religion these material improvements only hasten the effeminacy of character and the relaxation of morals. Or shall we expect real improvement from the cultivation of the arts and sciences? But history shows that the arts and sciences can draw their genuine inspiration only from the Christian religion, and that they can only flourish where religion goes hand in hand with them. Or from a perfection of political and legislative institutions? But experience and history ought to have taught us long ago that, if these institutions are to be inspired with the right spirit and are to exert a healthful, elevating and ennobling influence upon the people, they must be based upon the eternal truths of religion, and embody the principles of the teachings of Christ. These principles must also gain the ascendency over the human mind and heart; the masses must be permeated with them; they must lie at the foundation of all human thought and conduct, and true progress of the individual and of the nation will be assured. Then material improvement will no longer cause moral deterioration; then the arts and sciences will be permeated by a new spirit and take a fresh start and a higher flight in the realm of thought and action; and then the social, political and civil institutions will exercise a healthful sway over the people; mankind will reward its intellectual and spiritual strength, and move on step by step in the path of culture and true religion toward the goal of perfection and happiness.

VI. (*a*) The religious ideas have their source or origin in man. According to what we have said in the preceding pages, we may assume this principle as an axiom. Hence, where is the intelligent man who, like a few sophists of antiquity, desires to persuade himself that religion is an invention of rulers, to be applied to the people in order to tame their passions and make them (the people) to subserve their ends ? * Or that it has no other source than fear produced by certain natural phenomena ; or than gratitude for innumerable blessings given by nature ? † And who can adopt the theory of a few modern theologians and philosophers who, overestimating the incapacity of man's reason, maintain that all religious ideas were given to man by a supernatural revelation ? They forget that if God honored men with a revelation, it could only be done because men had religious wants. But can we understand these religious wants without assuming an inborn religious faculty corresponding to our intelligence ? Further, if man's reason is unable to rise to religious things, it is also unable to comprehend them ; and then a divine revelation would be something incomprehensible and therefore useless for man ; but it is not the property of divine wisdom to do useless things. We are therefore justified to recur to our principle in declaring that the first and only source from which religious ideas flow is the depth of the human soul.

(*b*) But notwithstanding the truth or reality of this fact, the question has been asked: Through the operation of which faculty of the soul has man obtained religious ideas ? This is an important question, and only its solution enables us to comprehend the importance of religion, to follow its course through the history of past centuries, to estimate the circumstances which hastened or retarded its development, and to explain the necessity and possibility of a divine revelation, while it also throws some rays of light upon the mysterious origin of Christianity.

(*c*) Without stopping here to explain the three divisions into

* Cicero, De Nat. Deor., I., c. 42; *Kritias* in *Sextus Empiricus*, adv. Mathem., IX., 20 et 54.

† *Sextus Empiricus*, adv. Math., IX., 25; *Lucretius*, v. 1161-1240; the notion that fear is the source of religion is perceptible through his whole poem; Benjamin Constant, De la Rēligion, tom. I., p. 13.

which psychologists have divided the human soul or mind—thought, feeling, and volition—we observe, in passing, that as the life of the soul is one—is a unit—religion is related not only to thought, but to feeling and volition as well, and therefore comprehends the spiritual or mental life of the soul in all its directions and ramifications. The want of space does not permit us to prove this, but we maintain with all the confidence of conviction that the idea of religion is a part and parcel of all the different powers of the soul. As these powers form an inseparable unit, that idea penetrates them all—permeates this unit, and constitutes an integral part of it, and can no more be separated from it than the intellect, or the sensibilities, or the will, without destroying this unity—yea, the soul itself. Hence, there is nothing deeper in the human soul than religion, and therefore its source must be sought in the depths of our being. If we desire to discover this secret source, then we must penetrate to the life of the soul where it is still a unit, and where it has not yet manifested itself in the many different directions of thought, and feeling, and volition. And where do we find this unit of the soul-life? We answer: In our consciousness. If we seek the religious ideas in our consciousness, our efforts will not remain fruitless.

(*d*) The facts of consciousness are the principles of all truth, or, rather, they are the primary and fundamental truths. They are with all men the same. Everyone carries within himself the germs of all truths accessible to our intelligence. One of the principal objects of education consists in bringing the facts of consciousness under the laws of our understanding and thus render them intelligible.

VII. (*a*) Since, then, religion is a fact of our consciousness—a fact at first indefinite and hence unintelligible, yet capable of an endless development—we observe that in the same degree that our consciousness is unfolding itself, religion will also unfold itself and pass over into our thought, and feeling, and volition; hence religion stands under the influence of all the powers of the soul; it gradually assumes various and often strange forms; through the activity of our intelligence it gradually divests itself of these forms, until finally our reason, supported by the investigations

of centuries, and illuminated by Christianity, discovers the idea or essence of all religion, namely, the idea of the absolute Being—the absolute Spirit—the idea of God.*

(*b*) Under the absolute Spirit we understand the first cause of all things and beings,—the living, intelligent, and infinite cause of the universe, the supreme Creator and Guide of all beings, the source of all life, the force of all motion. Through Him, and in Him, consists all that belongs to the material and immaterial world. And what is, properly speaking, the universe? It is one immense thought of God! It is a thought which, because it is divine, has become a reality and is expressed in the totality of things. And just as human thought is different from the intelligence which produces it, so the universe is different from its Creator; but just as the thought, although different from the intelligence, is, nevertheless, in it and has through it its existence, so, too, the universe is in God and consists only through Him and in and by Him.

(*c*) By reason of this intimate and indissoluble relationship existing between God and the universe is this universe in all its parts a revelation of God; it is the expression of His thought and being, just as the thought of man is the expression of the intelligence that produced it.

(*d*) And does not man, too, belong to the totality of the things and beings created by God? Yes, as a creature he has his being from Him; the roots of his being are in God; and, therefore, in the depths of his nature he is united with God. Immeasurable consequences flow therefrom. One of the first is, that man must necessarily have a consciousness of God. Indeed, how were it possible for him to "live and move and have his being in God" without being conscious of it? And just as man is, through his physical nature, related to the entire material

* When we speak here of religion, or of the idea of God, it is clear that we do not mean any one of the different so-called religions that may have existed or may still exist in the world, but the ideal religion, which, in its innermost essence, corresponds to the essence of Christianity, which (essence of Christianity) is the ideal religion. Its central idea is the idea of God; all other religious ideas flow from it. Even the doctrine of the immortality of the soul, though its truth is attested by its very nature and its wants, becomes really certain or true only through the idea of God. This idea lies at the foundation of all other religious truths.

universe, and is conscious of it, so by reason of his spiritual nature he stands related to God and is likewise conscious of it. This consciousness may at first be indefinite and confused, just as his consciousness may be of his ego; but it is, nevertheless, indestructible.

(*e*) Hence, nothing is more simple and more natural than the origin of religion; it has its source not in the one or in the other of the soul's faculties, but in all of them; hence its origin must be sought beyond them. Its origin must be where the soul-life is a unit, and where the consciousness both of the ego and of religion originate—in the depths of our innermost being.

(*f*) A second inference is, that religion must be found in or with all men, among all tribes and nations, of all times and climes, whatever may be the degree of their culture. Having already pointed out this fact, it is unnecessary to dwell here on it any longer.

(*g*) A third inference is, that religion is truth, because it is supported by the immediate truths of consciousness, and because the conviction with which we receive it is faith, so that faith here becomes or is knowledge. Through this conviction, through this faith or knowledge we are assured not only of God's existence, but of His love, of His providence, and of a just recompence beyond the grave. And thus religious faith has its ground in the fact of consciousness, and, therefore, it is also a matter of experience, and, hence, a matter of certainty, because certainty is based upon experience.

(*h*) From what we have heretofore said, we are enabled to determine what religion is. And if we attempt to give a definition of religion, we do not mean any particular form of it, but its quintessence. Religion does not consist in the belief of the truth of certain well-formulated articles of faith, as stiff orthodoxy would have it; nor yet in the fervor of religious feelings, as others would have it, if they do not contribute towards ennobling one's life and conduct; but religion is the entire inner life, determined both by the consciousness of God and by faith in His goodness and love.* Turned toward God and living in

* This, we think, is the best definition of religion; we do not say of the Christian religion, but simply of religion. In a future article we may set forth what the

Him with all the powers of His being, man draws from this eternal source of all life and being a fulness of life, and spiritual power that only the infinite God can afford to give, the result of which is (1) an unalloyed happiness, of which the godless man has no conception; and (2) a clear and definite hope of eternal life beyond the grave.

CURRENT THOUGHT.

[In this department we shall insert articles not read before the Institute.]

THE THEOLOGIAN'S MISTAKE.

By R. Abbey, D.D., Yazoo City, Miss.

WHEN evolution filed its bill against the Bible, thirty years ago, the theologians in defence, mistaking the purport of its allegations, joined the issue presented when they had a good case for demurrer, and, of course, their proof proved nothing important. The first question in every question is, What is the question? This was not ascertained and understood, but mistaking it to involve the truth of Genesis, the natural consequences followed, viz., a deep-water dispute without a debatable question.

It is not the first time a similar thing has occurred. Not long ago Nicolas Copernicus of Prussia published a discovery that the sun did not rise and set really—it was only apparent. And although he died too soon to be punished for so bold a contradiction of the words of the Bible, Kepler, Galileo and others did not. And later, science claimed to discover that our globe did not spring from absolute nonentity into existence just six thousand years ago, but had an unknown antecedence. And

Christian religion or Christianity is. Some philosophers who have attempted to give a "Philosophy of Religion" have gone to the extremes; on one hand, some have identified the world with God; on the other, some have placed Him far beyond the world, separated from it by an unbridgeable abyss. The one is pantheism, and the other deism. Both are wrong, because both are unjust to God, and fail to a ›unt for all the phenomena both in the physical and moral cosmos. Christianity places God in His proper relation both to the physical creation and to spiritual beings. It furnishes a key for the solution of all physical, intellectual, moral and spiritual problems in the history of man and the course of nature.

this supposed contradiction—whether so intended or not—gave some of the theologians trouble. And later still, the rising of the exact, identical atomic substance of which the human body is composed, in the resurrection, "born to its fellow bone," was questioned by chemical science on the ground that matter has no specific identity. And this gave some similar trouble for a while.

And still again, only thirty years ago, the announcement that man had an unknown antecedence beyond the Adamic period, startled theologians of hasty polemical proclivities into a flat denial of the fact. Look at Genesis!

Now evolution of the modern type, whatever other chameleon-like characteristics it may be held to possess, does not claim that man, our anthropological man, as such, existed away in high antiquity, but that something else existed, antedating man, and from which man grew or otherwise emanated. In other words, at this particular point, evolution teaches an unknown and apparently interminable antecedence of some sort, or many changing sorts, for our present man. So it was properly this antecedence that was denied. This denial of evolution, so-called, was upon the ground, first, that the Bible teaches that man was created about six thousand years ago, and secondly, that fossil remains do not prove the theory of the antecedence. And this is the controversy to which we have been listening for these last thirty years.

Now what is the question between these two classes of debaters? It cannot be whether God created man at all or not, for this is not denied. It would be no detriment to evolution to suppose this antecedence to be the mode of creating him. Neither can it be whether man had an antecedence at all which evolved into manhood, for this antecedence—some antecedence—is clearly intimated in the Mosaic Genesis. Man, according to Genesis, was not an absolute origination, but a making out of something then already existing. So an antecedence of some kind, or many kinds, is not doubted. Nor does theology warrant us in setting a limit, either in kind or in periodicity to such antecedence. That belongs to the domain of physical science. If physical antecedence is not interminable, it, at least, runs

away into dateless antiquity quite beyond the domain of polemics.

The debate cannot relate to the particular details—form, size, life or character of an admitted antecedence stretching upward away through the unknown errors of the past, for this would be an argument in the dark. Then what is the question? It seems there is nothing left to debate about but the mode of man's creation. And can we not well afford to admit, true or untrue, any allegations on a subject of which we know absolutely nothing? Why assume the responsibility of denying an allegation not material to the issue? Success can be of no advantage.

The evolutionist claims nothing but a very few facts he alleges to have discovered along the line of this upward antecedency, and but a few removes beyond manhood proper. And all the theologian claims is that God created man, but how—whether by means of a line of evolving sections coming down to us from a high antiquity, link after link, of something unknown, or by a shorter process, or by an instantaneous fiat, theology does not pretend to know or care to know. Theology is content with the simple unexplained and inexplicable fact that God created man.

A debate touching the particular details of man's antecedence is one in which theology has no concern. It belongs entirely to science. Theology reaches no further back than anthropology proper. It discusses man, not something else that may or may not have preceded him in the order of either time or sequence.

The only, or at least the most rational, view of the case seems to be that some theologians read early Genesis through anthropomorphic spectacles. The creation of man was therefore a local, tangible, outward performance—a mere local miracle which was performed on the first Saturday! This seems to be the only thing in plain sight that evolution denies. Evolution holds that the process of man's origination was much longer, more protracted and gradual. The question then relates to the length of time required for these processes to evolve. And who cares to know how it was? For if the long process was the way, then that was God's method of bringing man into being. And who knows or claims to know anything about God's mode of creating? If we are totally ignorant of any mode of creating, how can we

deny any alleged mode, however incredible or even ridiculous such mode may seem to be? A mode of creating is not alluded to in the Bible, nor is it conceivable in the mind.

It would seem, then, as above suggested, that the theologians ought to have demurred to the infidel declaration, not, of course, because their facts are not true, for that is not the question, but because they set up a fictitious issue which has neither meaning nor merit so far as the Bible is concerned. They summoned the wrong party. A demurrer would therefore soon sweep their bill from the docket. The issue of fact which evolution sets up may relate to some scientific theory, but, true or false, does not encroach on any Biblical ground.

Theology, sitting in its own sanctum, has certainly no objections to any explorations science may choose to make on any lines of physical antecedence; and if it can show us any misreading of Scripture we may have fallen into—of which we do not claim to have been faultless heretofore—we will be prompt and courteous in acknowledging the obligation.

The writer acknowledges obligations to Prof. Hyslop for some suggestions in his essay on this subject in CHRISTIAN THOUGHT of August, 1891.

RELATIONSHIP BETWEEN GOD AND MAN.

BY MR. HOMER MOORE, PITTSBURGH, PA.

FROM the standpoint of human experience, and by the light of reason, the existence of God and the relation in which men stand to their Creator can be determined. Facts are immutable and everlasting; the facts of human experience are legitimate evidence regarding human nature and the causes of what may be called human phenomena. I am not unmindful of the difficulty involved in this discussion, but I believe that by roundabout reasoning, by fusing with it questions that do not belong to it, and by attempting to explain those things which the human mind has neither the power or the data necessary to an explanation, the whole subject has been shrouded in mystery and finally consigned to the realm of the unknowable. By nature

the needle points toward the pole ; by nature the morning light streams first along the eastern horizon ; by nature the soul of man reaches out toward a power which we call God.

The darkest shadows of human history cannot conceal that longing after the consummation of goodness, and the subjective power which makes this longing possible is as truly an element of human nature as is the love of parents or the desire for personal welfare. The fact that there have been and are parricides does not overturn the principle that mankind as mankind love their parents and that it is their nature to do so. The fact that thousands have committed suicide does not controvert the conclusion that self-preservation is one of the strongest laws of our being. And the fact that certain men deny the existence of a God, or the desirability of religion and religious observances and organizations, amounts to an infinitesimal and almost unknown quantity in the presence of the fact that every nation and every tribe known to legend or history has, in the fulness of its throbbing soul, reached out towards that to which—without having been taught it—it knew that it owed its existence and all its possibilities.

The world recognizes religion as essentially an emotion. It cannot be expressed in all its fulness as we can express a mathematical truism. We can say it is a reaching out of self towards the centre of all that is better than self, but it is not fully expressed, and any attempted expression will be but a description. An idea can be stated ; an emotion described ; religion—distinct from theology and the principles of morality—can only be described. The intellect describes it in terms derived from ordinary religious experience, and in the description often attempts to formulate an adequate expression of the eternal agency which produces or occasions it : its failure does not disprove the reality or the existence either of religion or of its Author.

When we love we love some person ; a thing or a principle we admire. We love a being largely on account of the specific sympathetic force it exerts on us ; its effects being constantly modified by the state of our own minds consequent upon our ability to reciprocate its relation to us. Our love is occasioned by some external force which excites and qualifies the force we

possess in ourselves. An exhaustive investigation into the origin of emotions gives us this principle: Externality of the occasion of emotions is a universal necessity.

Hence religion, being essentially an emotion, demonstrates the existence of an external agency by which it is occasioned. Its universal prevalence is legitimate evidence that an external power exists adequate to induce in humanity as a whole this peculiar emotion. The fact that every tribe and nation known to us has given evidence of it shows the real existence of what has been called the religious element as an essential factor in human nature. The respect and desire felt for religion and its object have manifested a force in shaping human destiny that is immeasurable. Its persistence has been continuous, often exhibiting power in proportion to the extraordinary demands made upon it; in time of persecution it has been greater than the desire for self-preservation or comfort; in prosperity it has not been annihilated by luxury. All human nature has felt its influence; all human action has been affected by it; as an ever present force it has attracted man's nature towards his best opportunities for improvement so that out of his own being he has developed a glorious manhood in spite of antagonistic forces both inherent and external. No one can gainsay these facts and any denial of the existence and influence of God leaves them upon the pages of universal history, and in the hearts of all humanity, without any adequate cause.

As the power known as gravity holds the flying train close to the iron rails along which it moves, so the power that produces the religious emotion draws humanity ever towards duty. When a train leaves the rails it does not show that there is no such force as gravity, and when an individual, or a class, or a nation becomes degraded, it does not prove that there is no external power attracting mankind as a whole towards what is right. And as the approach of the derailed train as near as possible to the centre of the earth shows that gravity is stronger than the upward and onward motion of the train, so the progress of a nation, or a class, or an individual, in the pursuit of religious knowledge and feeling, shows that the power outside of man which draws him toward itself is stronger than the totality of

degenerating forces acting upon him from without. And as every material body on the earth tends to approach as near as possible to the centre, demonstrating thereby the universality of the power of gravity, so the progress of all nations, during their individual lives as nations, in determining and practising the right because it is right, and in the worship of God, shows the universality and persistence of the cause of the religious emotion. As the destruction or dismemberment of any material body on the earth that seemingly attempts to act in defiance of gravity but proves that the power of gravity is the greater, so the various misfortunes that accompany a denial or a disregard of the ever-present action of the religious power demonstrate that it is greater than human power. As the dismemberment of a material body does not destroy or annihilate the matter that constitutes it, so the soul is not annihilated by self-degradation. And as the material composing a disrupted body may, under favorable circumstances, be again worked up into a determined and specific form, so the degraded soul may, under circumstances especially favorable to its specific needs, be brought into harmony with the necessities under which it may develop towards perfection.

There is yet more evidence of the externality of the occasion of religious emotion. Man feels himself drawn towards something which is beyond himself, his nature, and his race. Even when a man is the object of worship he is credited with a superhuman nature which is derived from an external source. In fetichism and all forms of idolatry the object of adoration or fear is credited with supernatural powers,—with powers that were not originally attributes of its own being.

From the fact that every tribe and nation has been to a certain extent—not in conflict with the necessities of potential morality—controlled by this emotion, we may conclude that the External Power is greater than the totality of forces in their environments that are antagonistic to the perpetuity of religion. Since the history of the human race displays an expenditure of force in its development greater than is exhibited by any other phase of nature, and since the persistent influence of religion has been a concomitant causal factor in this development gradually overcoming all antagonistic conditions, we are warranted in

concluding that the External Power that has produced religious feeling is greater than all antagonistic powers. Being greater than these forces He cannot be the forces themselves, and many of them being essential elements of man's nature He cannot be man's nature; therefore He must be a Being outside of man's nature. Being greater than these forces, even when taken together with all external antagonistic forces, He must be supernatural—above nature.

Let it be distinctly understood that I use the word "religion" to mean that fundamental condition of the human mind or soul which worships and which makes worshipping possible; and that I do not mean any special set of dogmas or any form of religion or any one of the so-called "religions" of the world.

God being a reality, the human mind, in order to meet the demands necessary to its objectivity to that reality, must also be a reality. If the universe was created by God, it must surely contain the forces deemed objectively necessary by its Creator to its long career. If it is an emanation, creation being a superficial transformation of His eternal substance, then, too, it must contain the forces demanded by its objectivity to its centre, that it may subsequently develop into multifarious states. In either case regarding the origin of the universe, it will be possible for the divine power to find a correlative in man, and by a permanent and specific exercise of spirit-force, draw men on from good to better by stimulating the natural action of the inherent forces of their mental being; which forces are transmitted as the essential attributes of their natures from generation to generation.

History and human experience show that the religious power acts so in harmony with human nature that many have believed it to be but a peculiar exercise of the various forces inherent in man and in his environments. Many others seem to think that if there were any relationship between God and man He would manifest it by the exercise of His power in an arbitrary manner. The lack of scientific evidence that He has done so is often taken as proof that no such relationship exists. Freedom of choice and action forbids a necessity for arbitrariness, since such a necessity would infringe upon the degree of human freedom necessary to

morality, and therefore be evidence against the divine origin and nature of the power thus exercised.

The incontrovertible fact that the divine force acts upon human force, and without annihilating human force, moulds the results of its natural expenditure in such a way as to bring the whole synthesis of human action and being more and more into harmony with its total environments, proves that divine force, and therefore the divine nature, is in harmony with human force, and therefore with the real essence of human nature. Though divine force is incomprehensibly greater than human force, and of necessity so different from it as to be antithetical to it, yet the two are shown to be correlate and to act in harmony in the development of humanity.

The elements of man's nature being specific and immutable —since the substances of his being are indestructible—they are the proper and adequate means by which specific results may be produced. Bodily, he was prepared to receive impressions from without by being supplied with organs whereby he may obtain five different effects from one material cause, thereby being able to judge of it from five different points of contact, guaging one impression by another that error may be avoided.

Being possessed of a mental nature capable of infinitely more development than the body can realize, it is contrary to a conclusion from analogy that the mind should be less generously furnished in regard to intercourse with the purely mental or spiritual powers in the universe, and to claim that it is deprived of interaction of force with the highest power that exists, is to claim that the development of mind is but for the development of the body, for unless the mind can reach out towards that which is higher than itself, and be drawn upward ever towards that which is grander and better, its development will be measured by its material environments.

Men possess eyes so constructed as to be able to answer to certain requirements of a process that we call "seeing." Upon the surface of the earth, in its depths, and in the azure above, are objects that may be seen by the use of these eyes ; but given perfect eyes and an actually existing material object and nothing else, and seeing is an utter impossibility. What is lacking ? A

great mystery called light. Without light nothing can be seen.

Men possess a mental nature capable of thought, choice, and volition ; acted upon by its environments it is capable of a vast diversity of thought, choice, and volition. Choices and thoughts are different in their essential motives, independent of ultimate results, and there is a marvellous universality of this ethical perceptivity. How is this mental nature able thus universally to cognize this ethical difference in motives, independent of results ? By the spiritual attraction of the greatest mystery, God. This incomprehensible power draws men toward the good and from the bad by making possible a perception of the relativity of right and wrong. Moved and influenced by this spiritual attraction towards the right, the difference between right and wrong becomes potentially manifest ; in experience it becomes actually manifest.

The mental polarity known as duty and the influence of conscience are one and the same, and both are traceable to a fundamental perception of the ethical difference between right and wrong, and this I hold to be directly consequent upon the power of God drawing all humanity towards Himself. The words right and wrong are not used in this connection to mean the betterness or worseness of a motive, an action, or a result, but they represent a perception united to a feeling of rightness or wrongness considered only in its subjective state.

An investigation will show that in the best possible universe morality is a necessity ; every one knows that there can be no morality without comparative freedom of choice. This necessitates the possibility of wrong action. It does not, however, necessitate error itself, but there can be no freedom of choice between good and bad without power to choose the bad. The spiritual attraction of the divine power constitutes a potential tendency to choose the good always.

Light shines on the earth, with the sun in the zenith, evenly and brightly. A cloud passing between the earth and the sun obstructs the natural effect of the light upon a section of the earth. The sun shines as before, but a temporary interposing force—trivial in itself—deprives the earth of this beneficent effect. So

in human experience the attraction of the divine power acts evenly and constantly, but the malevolent predispositions consequent upon heredity, education, or environments, may act as interposing forces—also trivial in view of the magnitude and grandeur of human possibilities—and deprive the soul of this beneficent effect.

But in the soul there is power of both choice and action, in consequence of which—under the influence of the spiritual attraction exerted by the divine Being—even the persistent constitutional force of degenerate heredity, or the forces of malevolent education or environment, may be overcome, and a noble manhood evolved. This power in the soul constitutes the freedom necessary to morality; it exists because the soul is a real existence in itself, and because it embodies or contains in itself power it can choose and do not only the good but also the bad. It is, therefore, able in so much to overcome the attraction of the divine force; but it will never be able so to overcome it as to annihilate the power of perception of right and wrong, or to banish the possibility of the recognition of duty. On this basis it is clearly to be seen that the divine force constitutes an important factor in the development of character, and that the best possible character is developed along lines of least resistance to divine force.

Thus our investigation not only shows us that there is relationship between God and man, but it reveals to us the important fact that, Nature and God being in harmony in their essential forces, when the moral nature of man in its free action follows these lines of least resistance to the divine force, progress is made towards that universal harmony which this power tends ever to produce, and which will constitute the final perfect adjustment of the human soul to its intended destiny, holiness.

THE FIFTEENTH SUMMER SCHOOL.

By the Secretary.

The fifteenth Summer School of the Institute was held in the Hall of Philosophy, Seaside Assembly Grounds, Avon-by-the-Sea, from Tuesday, August 4th, to Thursday, August 9th, 1891. The first session was opened with reading of Scripture and prayer by the President, Charles F. Deems, D.D., LL.D., who also made a few introductory remarks on the objects and work of the Institute, and then read a paper which had been contributed by Rev. J. D. Gold, D.D., of Gibson City, Illinois, on "The Trend of Philosophy: A Retrospect and a Prospect." The lecturer announced has failed to appear.

Rev. Drs. John C. Clyde, of Bloomsburg, N. J., and W. W. McLane, of New Haven; Revs. Mervin J. Eckels, of Bradford, Pa., and Edward M. Deems, of Hornellsville, N. Y.; the President and the Secretary, took part in the discussion which followed.

Wednesday, August 5th. The devotional exercises were led by Rev. Dr. James M. Maxwell, of Monongahela City, Pa. The regular paper of the day was by Rev. W. W. McLane, D.D., Ph.D., of New Haven, Conn. His subject was, "The Scientific and Social Law of Survival." The discussion was conducted by Prof. George Macloskie, of Princeton College; Prof. Edward J. Hamilton, of Hamilton College; Rev. Mervin J. Eckels, President Deems and the author of the paper.

Thursday, August 6th. The third session was opened with reading of Scripture and prayer by Rev. Dr. John C. Clyde, of Bloomsburg, N. J. The President announced the following committees to report at the annual meeting on Saturday:

To audit the Treasurer's account, Prof. Joseph A. Hallock, of Newark, N. J., and Mr. Wm. Alberti, of New York City.

To nominate officers for the ensuing year, Robert B. Fairbairn, D.D., Principal of St. Stephen's College, Annandale, N. Y.; John C. Clyde, D.D., Prof. Edward J. Hamilton, Prof. George Macloskie, Rev. Henry T. McEwen, of New York City.

The regular paper of the day was by Rev. Edward M. Deems, of Hornellsville, N. Y., on "The Common Origin of Man." Rev. Drs. Clyde, McLane, Fairbairn and Jesse W. Brooks, of Brooklyn, N. Y.; Rev. Messrs. Ferguson and Eckels, Profs. Macloskie and Hamilton, took part in the discussion.

The Secretary gave notice that at the annual meeting he would move an amendment to the By-laws, so that to the present officers there should be added a Corresponding Secretary.

Friday, August 7th. At the fourth session of the School the devotional exercises were conducted by Rev. Dr. Brackett, of Lexington, Ky. The Secretary announced that a telegram had been received stating that the lecturer announced for the day would not be present and that he had not sent any paper; that the officers, faculty and other members of the Institute had met and invited President Deems to fill the vacancy; and that the President, with his usual willingness to serve the Institute, had, although with considerable hesitation, finally consented to address them.

Dr. Deems announced as his subject "The Present Outlook of Theology." Following are the names of the gentlemen who took part in the discussion: Rev. Drs. Wilbor, Maxwell, Clyde, Brackett and McLane, Revs. McEwen and Eckels, and Professor Hamilton.

THE ANNUAL MEETING.

Saturday, August 8th, 1891. The devotional exercises were led by Rev. Henry T. McEwen, of New York City.

The Auditing Committee through its Chairman, Prof. Joseph A. Hallock, of Newark, announced that they had examined the Treasurer's account and had found it correct. It is as follows, being from January 1st, 1890, to July 1st, 1891:

Dr.			
January 1st, 1890.	Due Treasurer	$250 74	
	Paid for furnishing CHRISTIAN THOUGHT to members and for distribution	1,230 55	
	Summer School Expenses	750 00	
			$2,231 29
Cr.			
	From Membership Fees	$1,168 02	
	Contributions	750 00	
	Interest on Endowments	313 27	
			$2,231 29

SECRETARY'S REPORT.

In many respects the last year has been one of especial interest to the Institute. It closes the first decade of its history, and it possesses an endowment fund, which, if properly enlarged, will eventually relieve the financial burden which has been constantly resting upon it.

The Secretary calls your attention to the

FINANCIAL REPORT.

From the Treasurer's statement it appears that there have been received from all sources during the year the sum of $2,335.67.

There have been expended the following sums:

For Furnishing CHRISTIAN THOUGHT to Members and for Distribution..	$1,230 55
" Summer Schools	545 00
" Clerical Services	327 10
" Postage	80 20
" Monthly Meetings	116 85
" Printing and Stationery	71 62
	$2,371 32

There are 404 annual members, the income from whose fees should be $2,020. But in reality only $1,272.40 have been received. After deducting for expenses, for clerical services and postage there is not enough left, as may be seen at a glance, by several hundred dollars, to pay for furnishing CHRISTIAN THOUGHT to the members and for distribution. This deficiency, which, because of the neglect of members to pay their dues, has steadily increased from year to year, has been met by the President, whose advances on the 20th of last December amounted to $1,053.74. This debt has now been reduced to $863.45. He is the Institute's only creditor.

The officers of the Institute at their meetings during the year have carefully discussed the question of devising some method to relieve this pressure. But it is evident from the above statement that they have not yet achieved very distinguished success. How can the members be induced to pay their annual dues promptly?

OBITUARY.

It is with peculiar sadness that we announce the names of those members whom death has removed from our number. They are Howard Crosby, D.D., LL.D., New York; Prof. A. W. Mangum, University of North Carolina; Prof. Alexander Winchell, University of Michigan; Pres. Henry Darling, Hamilton College, New York; Abraham Coles, M.D., LL.D., New Jersey.

CHARLES M. DAVIS, Secretary.

The President, Rev. Dr. Deems, made memorial remarks upon each of these deceased members. He had known Professor Mangum from his boyhood. His life has been an unstained record of usefulness. President Darling he knew only by his reputation as a pastor and college president, and by his connection with the Institute. Dr. Winchell's fame was as wide as the world of science and philosophy. He was in the course of lectures in 1881, which resulted in the formation of the Institute, and so has connected his name with us forever. Dr. Abraham Coles had done the Christian Church so much service in hymnology that his memory would be imperishable. Dr. Deems had assisted in the last rites by which this eminent man was attended to his grave. Of Dr. Crosby Dr. Deems spoke with the tenderness of intimate friendship. As scholar, philosopher, philanthropist, citizen and pastor, there could be but few men who could rival this many-sided man. No person could die in the city of New York whose departure would be a bereavement to so many people. Dr. Crosby was one of the earliest friends of the Institute, and delivered an address in our second course of lectures.

THE PRESIDENT'S ANNUAL ADDRESS.

In opening President Deems called attention to the blatant character of the attacks made upon the Bible and Christianity thirty years ago by men who took color from what was supposed to be science, and to the great change which had come over the tone of our opponents, and to the great falling off in the vigor of infidel societies. He attributed the change in the last quarter

of a century largely to the fact that there had previously been no organized body to meet the attacks of materialistic infidelity. Such a society was organized in Great Britain in the Victoria Institute, which soon demonstrated that all the brains were not on the side of opposition to the truth. The American Institute of Christian Philosophy was a society with similar aim, namely to produce literature of high character which should antagonize the influences of atheistic and material teachings. In giving a history of this body, Dr. Deems said :

To ascertain whether there was enough interest in the subject to justify an attempt to form a society specially devoted to the creation and distribution of literature illustrating the relations between science and religion, in the summer of 1881, at Warwick Woodlands, on Greenwood Lake, in New Jersey, there was delivered a course of lectures, beginning on the 12th and closing on the 22d of July. The following were the lecturers : The Rev. Dr. Deems, of the Church of the Strangers; President Noah Parker, of Yale ; Professor Bowne, of Boston University ; Professor Stephen Alexander, and Professor Charles A. Young, of Princeton ; the Rev. Dr. A. H. Bradford, of Montclair ; Professor Alexander Winchell, of the University of Michigan ; the Rev. Dr. Lyman Abbott, of *The Christian Union ;* the Rev. Dr. J. H. McIlvaine, of Newark, N. J.; Professor B. N. Martin, of the New York University, and Professor John Bascom, of the University of Wisconsin.

This movement was so successful that on July 21st a meeting was called for the purpose of organizing the American Institute of Christian Philosophy. At its organization the Rev. Dr. Deems was elected provisional president, the Rev. Dr. Bradford, provisional secretary, and William O. McDowell, provisional treasurer. President McCosh, of Princeton ; President Battle, of North Carolina; Bishop Cheney, of Illinois ; Bishop McTyeire, of Tennessee; Professor Bascom, of Wisconsin, and General G. W. Custis Lee, of Virginia, were the first vice-presidents. The first monthly meeting was held at Warwick Woodlands, on August 28th, 1881. The second was held on September 29th, 1881, in the parlor of the Church of the Strangers. The officers of that church generously provided an office and a place of

meeting for the Institute from the second monthly meeting to the winter of 1889. Its monthly meetings are held in Columbia College. The number of members to-day is nearly 500, including many of the most distinguished thinkers in Europe and America.

For eight years the monthly meetings were held in the chapel of the Church of the Strangers, New York City, the use of which, with light and heating, was gratuitously tendered to the Institute by the trustees of the church. During the winter of 1889–90 they were held in Association Hall, New York. Since October, 1890, they have been held in Hamilton Hall at Columbia College, Madison Avenue and Forty-ninth Street, New York.

During the ten years monthly meetings have been held regularly and papers read, except in the summer months. At those meetings there have been seventy-seven papers read. Two sermons have been delivered before the Institute in New York, one by the late Bishop Harris, of the Diocese of Michigan, on January 18th, 1885, in St. Thomas's Church, and another by the Rev. Dr. James R. Day, on February 21st, 1886, in the Madison Avenue Methodist Episcopal Church. At the delivery of Bishop Harris's sermon, Bishop Potter presided, and followed the sermon with remarks expressing his interest in the Institute and its work, and his hearty co-operation with it. He thanked the preacher for his admirable address, and said that the Institute of Christian Philosophy had been organized to get at those fundamental truths which more especially concerned society and men. Its members were not confined to any one denomination, but embraced, in addition to various bishops of the Protestant Episcopal Church, eminent scholars and professors throughout the country. In speaking of what the Institute is doing, the bishop said that its publications had already been sought for by some of the scholars in Japan who were now especially turning their thoughts to the Christian religion as the religion of the country.

The Institute has held fourteen Summer Schools, the first and second at Warwick Woodlands, the third at Atlantic Highlands, the fourth, sixth and eighth at Richfield Springs, the eleventh at Round Lake, the seventh at Asbury Park, and the others at Avon-by-the-Sea. At the Schools, 169 lectures have

been delivered, and three sermons: one on August 21st, 1886, by the Rev. Dr. Deems; another on July 21st, 1889, by Archdeacon Mackay-Smith, of New York; and the third by President Reed, of Dickinson College. Two courses of lectures were delivered in the Broadway Tabernacle in the winters of 1882–83 and 1883–84. These 169 lectures have been prepared with great care, and many of them by our foremost thinkers.

The lecturers have represented the following colleges: Bowdoin, City of New York, Columbia, Dickinson, Emory, Hamilton, Lafayette, Rutgers, Trinity, Tufts, Smith, and St. Stephen's; and the following universities: Boston, Cornell, Harvard, New York, North Carolina, Pennsylvania, Princeton, Texas, Vanderbilt, Virginia, Wisconsin, and Yale. In addition to the presidents and professors, some intellectual men in business circles have contributed to the literature called forth by the Institute, among them the distinguished explorer, Hormuzd Rassam, of England, and the acute thinker, Ram Chandra Bose, of India. These valuable productions of the Institute have been issued periodically and now constitute nine large octavo volumes, of which Dr. MacCracken, Chancellor of the University of the City of New York, and professor of philosophy, says: "The lectures and magazines it (the Institute) gives each year are almost themselves a faculty of graduate philosophy for the whole country." The lectures and other papers, and the transactions, are issued in a bi-monthly called CHRISTIAN THOUGHT, a copy of which is sent to all members.

Attention was called to the fact that its officers served the Institute without salary. All the income from membership fees and other sources, as the Secretary's report shows, is employed in meeting the expenses of the monthly meetings and Summer Schools which produce the papers and lectures and in printing and distributing this literature. There are schools and colleges and mission stations making appeals to which the Institute cannot respond. An Endowment Fund has been begun which now amounts to over $15,000. It is wisely invested. The gift of $100 to this fund makes the giver a life-member, and he thereafter receives all our publications. We desire to make this fund sufficiently large and productive to meet all the expenses of the

Institute, so that every other donation together with the regular membership fees may be devoted to the distribution of our literature in all lands.

A call is made upon all the members to nominate new members and to pay up all dues. The Institute invites to its membership men and women, learned and unlearned, all who wish by their names and fees to aid in its good work. One need not say that he resides too far from the seat of the Institute to take part in its meetings, and therefore he does not become a member. He will receive the publication containing all its papers and lectures, and by his fee help to send it to his brother who cannot afford the luxury of procuring them. The Institute is in receipt of frequent letters from home missionaries, pastors of churches, and professors in colleges whose stipend is so small as to compel them most reluctantly to forego or to drop membership. If someone would give us $100, twenty such names could be immediately reinstated. That one cannot contribute to the production of its literature is no more reason for not becoming a member of the Institute than the fact that one cannot produce such writings as the prophecies of Isaiah or the epistles of St. Paul is a reason for not becoming a member of the American Bible Society.

The President's address was followed by remarks from other gentlemen.

PROF. EDWARD J. HAMILTON, of Hamilton College, testified to the benefit and encouragement which he had received from the Institute of Philosophy. At its meetings he had formed the acquaintance of men whose spirit and sympathy had been a constant inspiration and with whom he hoped always to claim an ennobling fellowship. The bi-monthly review, CHRISTIAN THOUGHT, had come to him, for four or five years, laden with the treasures of earnest, intellectual work, and pervaded, from beginning to end, with the moral excellence and attractiveness of Christianity. It was the professor's practice, as soon as he had read CHRISTIAN THOUGHT himself, to take it to his class-room, to speak of it to the students, calling their attention to important articles, and to place it in the hands of those who were aiming at philosophical honors. He had to thank Dr.

Deems for the aid thus rendered; and also for the encouragement given to certain able young men whose articles have been accepted for publication. One such article has appeared every year for several years past; and it has not only been a solid contribution to philosophy, but also a proper recognition of hard work and rising merit.

The professor alluded to the comparatively small attendance of the general public at our Summer Schools. He himself did not care much for that; though, of course, he would gladly welcome all who had any love for divine philosophy. But he looked upon the Institute chiefly as a fulcrum on which professors and other studious men might rest their levers so as to move the world of thought by means of their combined effort. This object was being grandly served by the organization of the Institute and the publication of its literature. The highest honor is due to the indefatigable, ubiquitous and self-sacrificing president of the Institute for the way in which he has brought it to its present position of established and widespread usefulness. Dr. Hamilton believes that philosophy has a great future in the United States; and he predicted for the American Institute a most prominent and commanding place in the work of filling our country and the world with the light and truth of God.

THE REV. DR. MCLANE, of New Haven, spoke as follows:

"It has already been said that the Institute gives endorsement to valuable articles, and affords the means of their publication, when they could not find a place in the ordinary paper or magazine whose object is mainly to give information or pleasure to a popular constituency. The Institute also affords, by means of the wide range of its membership and their knowledge of able men, who have made special study of science or religion, an opportunity of introducing to print and to the public men who will ultimately take the place of older and more prominent men when their work is done. I have considerable sympathy with those men who cannot attend the annual or monthly meetings, and who do not know of the wide influence of the Institute, and so are withheld from becoming members. I would throw out

this suggestion which I have not fully considered, but which I deem worth consideration. There is now a vice-president in every state in which there are members. Might it not be well to add one or two more in such state to act with the vice-president, and to organize three or four local state meetings of the members of the Institute each year? The members in any state would meet, see and hear each other. Notice of such meetings, with titles of papers and names of authors, might be published in CHRISTIAN THOUGHT. A synopsis of articles read might also be published from time to time, but no paper read at a local meeting should be published without the approval of the proper officers of the national society. An additional fee of one dollar, for local expenses, would, perhaps, meet the cost of such societies. I think some such plan would increase the membership and enlarge the influence of the Institute. I make this suggestion, as being, in my judgment, worthy of consideration."

REV. DR. FAIRBAIRN, of St. Stephen's College, said:

"*Mr. President:*—

"I beg to say, on this anniversary of the American Institute of Christian Philosophy, that I heartily agree with you in thinking that it has been the instrument of a great deal of good. It has helped to create a sentiment on the subject which the Institute has in view. We are striving to drive back the wave of scepticism and to help and encourage men to see the truth—to see God in His Word and in His works—and to see that in each He speaks the same language—that His revelation in each is in harmony.

"The work that is done is in a great measure owing to the influence and encouragement which an association like this gives. You probably could have written most of the essays and papers which have been printed in CHRISTIAN THOUGHT. You might have been the author of the eight volumes which we have published. I might have possibly done the same work. But how small in comparison would have been the influence of those volumes under our individual authorship; or even if you and I had published them together—had joined our efforts to produce these volumes, no doubt they would be more influential than our individual work. But when an association of scholars, joined in the

relation of an Institute like this, put their efforts together, the influence of those efforts becomes greatly more powerful, and produces a far greater effect on the thoughts of men.

"This summer meeting, where there is a discussion of each paper, and every subject receives the consideration of a number of scholars, makes the papers far more valuable than they would be were they not subject to the discussion and criticism. These meetings, which we hold, give to the papers a much greater value, and prevent our sending out to the world arguments which are inconclusive, and papers which are of little value. The eight volumes which the Institute has published, under your editorship, are a valuable contribution to the discussion of some of the most important questions of the day.

"The meetings of the Institute bring together a number of gentlemen and scholars who have a very happy influence on each other. It is a benefit which, for myself, I cannot overestimate. It is not only the discussion of these grave and important questions which I value, but it has brought me into relationship to Christian gentlemen whose influence I deeply value and from whom I bring away important benefits. It makes one think better of his race, when he finds that there is more culture, more knowledge and higher character in the Christian scholars with whom it is his privilege here to associate. It is a reciprocal influence in which we receive more than we can give.

"It might be pleasanter, as you have intimated, had we larger audiences to whom these papers could be read, and before whom these discussions might be carried on. But that is really not our work. Our work is to present these papers in our magazine, and thus to give them a permanent value.

"I beg, therefore, to congratulate you and the Institute on the valuable work which it has done in the cause of truth. May it go on and prosper; and may there always be scholars who by their high character and their profound learning will be ready to meet the questions of the day and put them in such a light that the world may receive great and lasting benefits."

The amendment to the Constitution, presented by Mr. Davis, was then read and accepted, whereby it was provided that here-

after the officers of the Institute shall consist of a President, a Vice-President in each state in which we have members, a Secretary, a Corresponding Secretary and a Treasurer. There shall also be five Trustees and an Executive Committee, consisting of the President, Secretary, Corresponding Secretary, Treasurer and such other gentlemen as may be named by the President.

The Nominating Committee, through its Chairman, Rev. Dr. Robert D. Fairbairn, made their report, which was accepted, and the officers for the coming year were elected as follows :

President, Charles F. Deems, D.D., LL.D.

Vice-Presidents, Alabama, John M. P. Otts, D.D., LL.D. ; Arkansas, Thomas E. Murrell, M.D. ; California, Rev. F. M. Dimmick ; Connecticut, Noah Porter, D.D., LL.D. ; District of Columbia, Bishop J. F. Hurst, D.D., LL.D. ; Delaware, Hon. Thomas F. Bayard; England, Prof. G. G. Stokes, D.C.L., LL.D., F.R.S.; Georgia, Isaac S. Hopkins, D.D., Ph.D.; Germany, John H. W. Stuckenberg, D.D.; Illinois, Bishop Samuel M. Fallows, LL.D. ; Iowa, Thomas D. Fleming, D.D. ; Japan, Jon Kanzo Uchimura; Kentucky, Hon. W. C. P. Breckenridge, M.C. ; Massachusetts, Rev. Joseph Cook; Maine, Thomas Hill, D.D., LL.D.; Maryland, Charles J. Baker, Esq. ; Michigan, Rev. Joseph M. Gelston; Mississippi, Rt. Rev. Hugh Miller Thompson, LL.D.; Missouri, Bishop Eugene R. Hendrix, D.D. ; New Brunswick (Can.), James R. Inch, LL.D. ; North Carolina, Hon. Kemp P. Battle, LL.D.; New Hampshire, Rev. Henry E. Cooke ; New Jersey, President Francis L. Patton, D.D., LL.D.; Nova Scotia (Can.), Rev. Wm. Ainley ; New York, Archdeacon Alex. Mackay-Smith, S.T.D. ; Ohio, James W. Bashford, D.D., Ph.D.; Ontario (Can.), Rev. Donald G. Sutherland, A.M.; Pennsylvania, Wilbur F. Watkins, D.D., LL.D.; South Carolina, Gilbert R. Brackett, D.D. ; Tennessee, James A. Orman, D.D. ; Texas, Robert L. Dabney, LL.D. ; Virginia, Prof. Francis H. Smith, LL.D.

Trustees, Robert L. Crawford, William P. St. John, James Talcott, Cornelius Vanderbilt, Marion J. Verdery.

Secretary, Charles M. Davis.

Corresponding Secretary, Rev. John B. Devins.

Treasurer, William Harman Brown.

After the election, other remarks on the character and value of the Institute's work, and suggestions as to the enlargement of its field of operations, were made, and the annual meeting adjourned.

Sunday, August 9th, 1891, at 11 A.M., S. D. McConnell, D.D., Rector of St. Stephen's Church, Philadelphia, preached the sermon to a large and deeply interested congregation. The President conducted the devotional service. In the evening the symposium was on the question, "Of all your reasons for accepting Theism, which seems to you to be the most trustworthy?" Papers were read from Prof. Noah A. Davis, University of Virginia; also by the President. Remarks were made by S. H. Wilder, Esq.; Rev. Mr. McEwen, and Rev. Drs. Maxwell and McLane.

Monday, August 10th, 1891.—The devotional exercises were led by Rev. Robert H. Fleming, Lynchburg, Va. The regular paper of the day was by Rev. W. C. Wilbor, Ph.D., Buffalo, N. Y., on the "Influence of Association." Rev. Dr. John C. Clyde, Miss Stewart, of Philadelphia; Rev. Dr. W. W. McLane, Prof. Edward J. Hamilton, Rev. Dr. Deems and the Secretary, took part in the discussion.

Tuesday, August 11th, 1891, 11 A.M.—After the devotional exercises, which were conducted by Rev. W. C. Wilbor, Prof. Edward J. Hamilton D.D., of Hamilton College, read a paper on "Perceptionalism." The subject and paper were discussed by Dr. Deems, Prof. Theodore F. Seward, Dr. W. F. V. Bartlett, Lexington, Ky.; Rev. Mr. McEwen and Rev. Edward M. Deems. In the afternoon, after prayer by Prof. Joseph A. Hallock, of Newark, the President announced that Hon. Wm. H. Arnoux, of New York, who was expected to read a paper before the Institute on "The Influence of the Bible on Modern Jurisprudence," was confined to his bed on account of a serious accident; but that he had sent his paper to be read in his absence. Prof. Theodore F. Seward, of East Orange, N. J., read the paper, which was discussed by Drs. McLane and Deems. The thanks of the Institute were presented to Prof. Seward for reading the paper; and on motion of Dr. Bartlett, seconded by Prof. Phoebus

W. Lyon, a vote of sympathy for Judge Arnoux was passed, and the Secretary directed to inform him of its passage.

Wednesday, August 12th, 1891.—Prof. Edward J. Hamilton led the devotional exercises, after which Francis L. Patton, D.D., LL.D., President of Princeton College, addressed the Institute on "Theism." The discussion was conducted by Rev. Edward M. Deems, S. H. Wilder, Esq., Professor Hamilton, and Ex-President Robinson, of Brown University. The audience was larger than at any other meeting of this Summer School.

After the singing of the Doxology, the President pronounced the benediction and declared the Summer School closed.

EDITORIAL NOTES.

THERE are probably members of the Institute who live so far from its seat that they cannot attend its sessions, but who might prepare papers to be read at our monthly meeting. They are respectfully requested to make contributions which can be so used or inserted in CHRISTIAN THOUGHT. One of our western Vice-Presidents has prepared a paper on Mr. Spencer's "Data of Ethics," which will have a hearing at one of our meetings this winter, and we trust his example will be followed. A shorter essay, very valuable, from the pen of Dr. Abbey, and another by a young layman, Mr. Moore, are in this number.

THE article "About Books" is in type, but must be postponed for want of space.

CHRISTIAN THOUGHT.

THE TREND OF PHILOSOPHY: A RETROSPECT AND PROSPECT.

[Delivered before the Institute of Christian Philosophy, at Avon-by-the-Sea, August 4th, 1891.]

BY THE REV. J. D. GOLD, M.A., PH.D., COLUMBIA, TENN.

THE connection between theology and a true philosophy has always been recognized as a vital one. A true theology must have a correspondingly true philosophy. This much has always been recognized even by the leaders of negative thought. From the days of philosophic scepticism as led by Pyrrho, down to our modern doubt as found in the writings of Hobbes, Hume, Mill, and Spencer, speculative philosophy has been utilized as the most potent agency with which to destroy faith in the unseen and eternal. If this be true, it must be evident that no one is prepared rightly to appreciate and pursue the study of the "deep things of God" as found in that "one science, incomparably above all the rest,"* who has not a fair grasp at least of the history and problems of modern speculation. One who is grounded in a rational theory of knowledge will have but little trouble from the theological consequences of Hume and his school.

The great ambition of the sceptical side of modern speculation has been to undermine knowledge, and thus render reality, both external and internal, an unknown quantity. It has invaded the sacred precincts of the human mind, and endeavored to prove that our senses are not to be trusted, and that we have therefore no objective truth on which we may depend with absolute certainty Indeed, Prof. Huxley, whose writings I always enjoy, seems to sanction the absurd statement that "A very

* Locke's "Conduct of the Understanding," sec. 23.

candid thinker may admit that a world in which two and two do not make four, and in which two straight lines do enclose a space, may exist."* The same philosophical negation has tried to destroy the inner sense—consciousness—by which we come into immediate contact with the human spirit, saying that it is a mere series of feelings arising from the action of our environment upon the external and internal surfaces of the organism. Hence we must not be sure that we know, for a certainty, either external body or internal spirit. There are no certain criteria of truth, for there is no objective or subjective ground on which such criteria may rest. Definite knowledge, therefore, there is none. We call our acquirements knowledge—it is the best term we can use—but we must no be overbearing enough to assert that we positively know anything. Such is the present attitude of anti-theological speculation.

What is known as modern speculation in its recent psychological sense may be said to have begun with Locke's onslaught upon the vague logic of the schoolmen. And as is usual with the human mind, he swung from the extreme transcendental formulas of the schoolmen, to the very verge of a blank sensationalism. His own mental workings in this matter, might have formed a suggestive section and note of warning in his excellent treatise on the "Conduct of the Understanding." Locke was a man of broad common sense, as his essays show, but, like the rest of mankind, he was evidently blind to this his own failing. He rightly observed, in testing the dicta of the schoolmen, that truth must not rest on rules or categories, but upon God-given reality. His great endeavor, therefore, is to reach it, and it alone. His tools for its discovery are sensation and reflection. Sensation furnished him with thought food, reflection digested it. Locke has been complimented by some for simplifying the knowing process, and accused by others of mystifying it, and opening the doors to agnosticism. The latter are no doubt correct. According to Mr. Locke the mind does not come in direct contact with objective things, but by way of an "idea." He has more to say of "the ideas and images in men's minds"† than of

* "Lectures on Evolution," delivered in New York, 1876. Lecture i.

† "Conduct of the Understanding," Introduction.

the reality from which they spring. Indeed he believed this reality or "substratum" could not be known and was not to be sought after. In spurning the search after the "thing in itself" by way of scholastic logic, he contented himself with dealing with the ideas he found in the mind and treating them as the only tangible reality. But Locke believed his idea represented a thing or substratum. He reaches reality, therefore, by the very means he condemns in the schoolmen, by inference rather than by contact. We reason from the shadow to the substance —from the image to the thing imaged—but as to what that substance is no one knows or should pretend to know. He thus falls into the absurdity of Mr. Spencer—of believing in a thing he knows nothing about. Mr. Spencer indeed contends that to deny the existence of what he claims to be the unknown "is to commit intellectual suicide."* It will be easily seen that Locke's admission is the pointing of the agnostic wedge in its later form under Huxley and Spencer. He got a glimpse of the promised land of common sense, and had he destroyed his image or idea, exercised a natural faith in the trustworthiness of the inner and outer senses—a faith which is born with all men—he would have reached the thing in itself and built his philosophic house upon the rock of eternal reality. But Canaan was to be entered by another Joshua.

Berkeley, aroused by the scepticism of Hobbes and the tendency of that philosopher's system to run into pure materialism, resolved upon a bold idealism—taking Locke's "idea" or "image" as his point of departure. His first stroke was to destroy Locke's supposed "substratum," and leave himself in possession of a world of ideas only. He drove Mr. Locke's philosophy to its legitimate terminus. For if we cannot know the thing in itself, why compel us to believe that it exists at all? He consequently looked upon the delusive substratum with about as much contempt as Locke had viewed the figmic forms of the schoolmen. "If," said he, "the mind cannot perceive anything but ideas, there is no evidence of there being anything else; and

* See his Reply to Frederic Harrison's Criticism of his "Religion." Published in Gail Hamilton's "Irrepressible Book." We would be glad to know how Mr. Spencer himself has escaped this state of mind. His psychology certainly leads to it.

if there were, it could serve no purpose." Berkeley is determined that henceforth he will look directly at ideas and let the unknown and unknowable "thing in itself" alone. He thus projects himself into the ideal world and treats it as the only reality. Nothing exists to him outside of mind. Nothing exists where there is not a mind to perceive it. This prepared the way for the sweeping German idealism under Fichte, who claimed that all objects were merely mental projections.

Berkeley, however, has touched upon a most precious truth —that the outside world of matter has a mental tinge—that although there can be no matter in mind, yet there may be mind and thought imbedded in matter. For if such were not the case, objective nature would remain an unintelligible riddle. We cannot understand that which contains no thought. In this respect he has no doubt done good service to the doctrine of design. Principal Fairbairn, in his Chautauqua lecture on "Berkeley," has not overlooked this fact, and has thus done justice to the great Irish bishop.

The trouble with Berkeley seems to have been an inability to conceive of objective reality in nature, and subjective thought in man, as existing apart—that is, of a thing existing without a mind to perceive it. He thus makes all mind one and indivisible, and prepares us for Hegel's all-embracing, pantheistic mental monism. In order to an act of knowing, the facts seem to suggest, there must be a coming together of objective thought in nature and subjective thought in man. Berkeley discovered half of this truth. We now have the whole.

The keen-eyed David Hume was not slow to perceive the gap left in the philosophic fence by Bishop Berkeley. He immediately made it the entering point of his idealistic scepticism. Berkeley had destroyed the external reality so tenaciously clung to by Locke, holding only to the "idea" of the latter philosopher. Hume in turn obliterated both the external and internal reality and clung alone to Berkeley's "ideas," which he converted into mere "impressions" of some sort, without a thing impressing or a thing impressed. Our consciousness henceforth must be looked upon as only "a series of impressions"—a mere chain of sensations. Thus J. S. Mill, a loyal disciple of Hume, believed

the soul to be definable as a "series of feelings aware of itself." The outer world, also, is no more than "the permanent condition of sensations," or of the "impressions" just mentioned. These sensations, impressions, phenomena, or ideas, as we may be pleased to call them, form an endless chain over which we have no control. Indeed there is no *we*. Neither is there an *it*.

According to Mr. Hume there is no self-consciousness, for there is no self of which to be conscious. There is neither a self nor a not-self. Nothing but a series of sensations are to be thought of. Mr. Spencer states Hume's view while stating his own. "It seems to me," says he, "that the consciousness of self and the consciousness of not-self are the elements of an unceasing rhythm in consciousness." * This "unceasing rhythm," of course, is simply kept up in a superficial consciousness by the frictional action of the links in the endless chain of associated ideas or impressions. We have no more control of the rhythmic "series of feelings" accompanying the "unceasing" revolutions of this chain than we have of the rising or setting of the sun. Man is consequently completely in the fatalistic grip of an unmerciful emotionalism. Mr. Ingersoll repeats Hume's philosophy in his discussion with Dr. Field in the *North American Review*, when he claims that we are no more responsible for our motives and actions than are earthquakes, lightnings, and tornadoes. Indeed, in addressing a crowd of workingmen lately, he exhorted them with his usual eloquence to get away from "the superstitious notion that they were free." The supposed consciousness of self, according to Hume and his disciples, is a flimsy delusion to be strenuously shunned by the knights philosophic. It will be noticed that the "idea" of Locke and Berkeley is identical, for all practical purposes, with the "impression" of Hume, "feeling" of Mill, "rhythm" of Spencer and, indeed, as will be afterward shown, "phenomenon" of Kant. For all systems which bring anything between the perceiving mind and a *real* reality are to be classed in the same category and labelled "failure."

But the later disciples of Hume are in a heap of trouble over their master's "sensati " or impression, for whereas Hume was

* "Synthetic Philosophy:" *Psychology*, vol. ii., pp. 437–8.

not certain as to the existence of the subjective Ego his modern followers have become most positive on this point. They have unmercifully annihilated the human soul, and how Hume's "sensation" is registered, or Mill's "feelings" are felt, is now puzzling the positive negativists beyond all description. Huxley in his "Lay Sermons," claims that it is only a question of time when "the reign of matter and law will be co-extensive with consciousness, feeling, an daction." Bain also makes us feel anxious about the safety of the long-cherished subjective Ego. In summing up his chapter on "Theories of the Soul,"* he says: "The rapid sketch thus given seems to tell its own tale for the future. The arguments for the two substances have, we believe, now entirely lost their validity; they are no longer compatible with ascertained science and clear thinking." Professor Tyndall, consequently, is at a great loss to know how to account for the realization of a "sensation" seeing there is now no self who experiences it, and well may he be puzzled. "The passage from the physics of the brain," says he, "to the corresponding facts of consciousness is unthinkable."† Professor Huxley, even in spite of his firm belief in animal and human automatism, stands amazed in the presence of an "impression" without a thing impressed, a "sound" without an ear, a "beat" without a drum. In his "Lay Sermons" he says, "How it is that anything so remarkable as a state of consciousness comes about as the result of irritating nervous tissue is just as unaccountable as the appearance of the Djin when Aladdin rubbed his lamp." Indeed, in spite of "ascertained science and clear thinking," it would seem to be the clearest, most rational, and by far the most scientific position to accept the existence of a free, self-conscious Ego, which receives "impressions" although existing independently of them. The followers of Hume—that wonderful oddity who conceived the idea of intellectuality being "that little agitation of the brain that we call thought"—will only get clearly out of the woods when they listen again to the plain testimony of their inner and finer sense on the actual existence of themselves, not as flesh and blood, but as free, self-determining beings.

* "Mind and Body," chap. vii.

† "Fragments of Science," p. 121.

Hume bearded Berkeley in his ideal den, and was himself in return grappled with by Thomas Reid, one of Scotland's best and greatest sons. Berkeley had reduced all reality to ideas or mental phenomena. Hume followed the Irish bishop in this; simply substituting "impression" for "idea." Our consciousness, according to the Edinburgh philosopher, is a deceiver in so far as it pretends to reveal that mystic entity called the Ego. Our senses also, which pretend to lead us to external reality, are no longer to be trusted. Truth in itself can never be known. All our professed intuitions are simply the resultant of a long and orderly rhythmic series of impressions, held together in the fatal chain of association. Our "convictions," of which we boast so much, are merely ruts worn by custom into a subjective nonentity.

This sweeping agnosticism, which threatened to destroy all knowledge, stirred to its depths the righteous soul of Mr. Reid. Hume's scepticism pretended to rest upon psychology, or "human nature," as he called it. This assertion had the happy effect of drawing Reid into the same field; a field which never before had yielded the fruits of a true scientific culture. Reid rightly felt that if Hume was to be met at all it must be by showing the fallacies lurking beneath his theory of knowledge. The Kantian school, on the other hand, virtually accepted Hume's psychology, and vainly attempted to reach truth through criticism and logic. But if axioms are only relatively true, as the result of a long chain of custom and association, where is there any possibility of exercising the dialectic faculty? What force is there in criticism or logic if there is no foundation in eternal truth upon which they may rest and from which begin? Kant's starting-point, that all knowledge is not of reality but only of appearances, virtually surrenders the philosophic ship to Humetic seamen.

Reid, on the other hand, speculated but little about "appearances," "phenomena," "qualities," and "properties." The bulwark of his theory of knowledge was scientific induction and patient verification. After a long process of psychical experimentation he was driven to the inevitable conclusion that man is a self-determining spiritual being. He shows that man cannot be explained on any other hypothesis. Indeed to him such is not an hypothesis. The unbiassed of all ages have reached this

truth through the inner sense called consciousness. The outer senses are also to be firmly trusted when they declare to us the existence of external reality. Like Aristotle, who claimed, in opposition to the followers of Pyrrho, that "man is organized for truth," he believed that not to trust our inner and outer senses was to be guilty of the most awful intellectual suicide.

Reid dispensed *in toto* with Locke's "idea" and thus escaped the endless trouble both of Locke and Bishop Berkeley. Locke's "idea," and "substratum" of an idea, were unmeaning to Reid. The thing we see is not an idea, or any other ghostly image, but is in veriest truth the thing in itself—the long sought after actuality. Professor Clifford, in his "Seeing and Thinking," * and nearly all recent opticians, run almost directly along the lines of Reid in reaching the actual thing perceived. Dr. McCosh, also, in his "Cognitive Powers," sustains Reid throughout in his theory of perception. "Our first conscious experience,' says McCosh, "does not consist of impressions, but is a knowledge of things." † Some have thought that they have discovered a striking instance of sense deception, and the truth of idealism, in the inverted image on the retina of the eye in sight perception—that we see only an image, not a thing. The delusion arises in forgetting that the rays pass on through the eye prism and find their real position in the mind; and that the mind intuitively traces them back again to their real position in the external world. "It is in fact a mere mechanism, or means to let us know the shape and direction of the object," says Dr. McCosh, "and it is governed by the law of visible direction, which is, when the rays strike the retina we trace them back along the line by which they have come. The rays at the base of the retinal figure have come from the top of the object, say an arrow, and we place them at the top, while those at the top have come from the foot, thus giving the object its real position." ‡ Mr. Sully, in his excellent

* See his fine chapter on "The Eye and Seeing."

† "Cognitive Powers," p. 19.

‡ "Cognitive Powers," p. 52. Sir George G. Stokes, in his excellent paper published in CHRISTIAN THOUGHT for February, 1891, shows the identity, for all practical purposes, of the eye with an optical instrument. An astronomer would consider it mere cavilling to assert that his telescope deals with images only, and that it does not reveal the stars themselves.

work on "Illusions," sustains Reid also in the scientific accuracy of his common-sense theory. "Science," says he, "including psychology, assumes that in perception there is something real, without inquiring what it may consist of, or what its meaning may be. And though in the foregoing analysis of perception, viewed as a complex mental phenomenon or psychical process, I have argued that a percept gets its concrete filling up out of elements of conscious experience or sensations, I have been careful not to contend that the particular elements of feeling thus represented are the object of perception or the thing perceived." *

Kant—or Cant, as it is spelled in Scotland—born in Germany through Scottish ancestors who had removed to Germany from the North of Scotland, † next entered the lists against Hume. As we have seen, he tacitly allowed Hume to retain unmolested his stronghold of a sceptical psychology. He failed to refute the subtle Scotchman, because to fail here was to fail completely. Grant Hume his psychology and all the air castles of dialectic criticism cannot avail against him. Intrenched behind his theory of knowledge, he is perfectly safe. If his theory of mind be true, his atheism or agnosticism will have easy sailing. What difference is there between a system which gives the mind "impressions" for things and one which gives it phenomena instead of reality? Do not both tantalize the soul, which cries for reality, by giving it a shadow for substance, stones for bread? Any system which brings the faintest shadow, be it in the form of idea, impression, image, phenomenon, or quality, between the mind and the objective world of spirit and matter is untrue to the facts, out of joint with the tendency toward a common-sense realism, and will lead to agnosticism, if not atheism, in its last analysis. Agnosticism is, indeed, crippled atheism. As Professor Hinds has lately pointed out, it has no consistent place in philosophic thought, and must speedily give way to theism on the one hand or atheism on the other—its natural terminus. It has always been the delight of philosophic infidelity to obscure

* "Illusions: A Psychological Study," chap. iii. This work, published as late as 1881, after having appeared in the leading English reviews with scientific endorsement, shows in what direction true philosophy is tending.

† McCosh's "Realistic Philosophy," vol. ii., p. 189.

objective and subjective reality, or at least render them unknown quantities. Kant weakened theism by his strange doctrine that we can only know theistic phenomena—phenomena instead of God Himself. The Bible has it right when it positively asserts that God, not phenomena, is known by the things that are made—that we know God producing phenomena, just as we know things appearing—not appearances instead of theistic or material reality as Kant would have us believe. How are we to know, according to the phenomenalism of the Kantian school, whether we are not in a land of ghosts after all? How do we know that the phenomenal appearance represents a thing? Are we certain that there is an authoritative *nexus* between them? A philosophy, it is plain, that would spare a thorough-going theism must get away from phenomenalism and bring us directly in touch with actuality, material, mental, and theistic.

Some think, however, that Kant succeeded in his laudable endeavor to reach spirit and truth. Mr. Sloane, indeed, insists that "Kant met the sceptics on their own ground."* I would say he met *with* them thus,† and will finally share their fate in the mind of coming ages.

It is to be regretted that Dugald Stewart tampered with Reid's simple, scientific theory of perception, and by so doing compromised the later Scottish school. Like Reid, he reached, by immediate contact, the external world, but when he reached it he found there nothing but "qualities." The totality of an object is the sum of its qualities. The qualitivism of Stewart is altogether unsatisfactory, and could never, of course, remain the goal of a philosophic tendency which, awakened by Reid, is reaching out after things rather than shadows.

Sir William Hamilton seized upon Stewart's qualitivism, and, linking it to Kant's phenomenalism, claimed to have found a true theory of perception. Even such a clear-headed scientist as our own John Fiske seems committed to the qualitative assumption.

* *Century*, January, 1887.

† "Kant taught that we can know objects 'only as they affect us.'" (Noah Porter's "Kant," p. 100). This "affection" is simply Hume's "sensation" or "impression." He sometimes calls it a "phenomenon," and holds that we only come in contact with these and not with objects themselves.

"In science, for example," says he, "we make no use of a spiritual substance, nor a material substance either. We can get along sufficiently well by dealing solely with qualities."* According to this doctrine we may know material and theistic qualities or phenomena, but matter and Deity must remain forever the unknown and the unknowable. Fiske is, as is well known, a disciple of Spencer, although an intense theist, while Spencer is in turn a follower of Sir William Hamilton in his qualitative theory of perception. But who, in ordinary life, would think of asserting that a passing locomotive was nothing but a bundle of engine-like qualities while the thing in itself—the locomotive—is altogether unknown and unknowable? Tappan has said that the common people often reach truth which the philosopher, by his round-about, cut and dry methods, fails to discover. This same class, who usually possess common sense in its native purity, heard Jesus, the Truth, gladly. An honest, scaly fisherman may possess more real philosophy than all the bemuddled sages of his day. Truth is frequently found in earthen vessels. One thing is evident, there is little agnosticism among ordinary people. Man, if he escape the hand of the philosopher, will always exercise a child-like faith in the existence of external and internal reality. Cousin says "there is no natural atheism," and he might have included philosophic agnosticism in this maxim.

The clearest expounder of Sir William Hamilton is, perhaps, Dr. McCosh of Princeton, who not only understands the system of the giant metaphysician, but, in addition, enjoyed the pleasure of a personal acquaintance with him. McCosh says: "Sir William Hamilton, as became a knight, was a powerful champion of what he believed to be the truth. He is professedly the most determined of all realists. He has defended the doctrine more clearly than any other. He shows that consciousness testifies in behalf of the immediate knowledge of both mind and body. But unfortunately, as I think, he sought to unite the German philosophy of his day with the Scottish, and was unable to make the two amalgamate. The two philosophies have much in common; both hold by native and necessary truth; but the former reaches it by criticism, the latter by a careful observation of what passes

* "Unseen World," p. 53.

in the mind. Hamilton maintained resolutely that the mind perceives matter directly, but that this knowledge is only relative."* "He is the most learned, however," he tells us, "of all the Scottish metaphysicians."† Noah Porter, after an exhaustive examination of the phenomenalism of Kant and relatively of Hamilton, says they are both the result of "misapplied analogies."‡ Professer Cocker is not less severe when he says: "Sir William Hamilton affirms that we do not know things as they exist, but only as they appear. . . . Now, if the thing in itself be, as Hamilton says it is, absolutely unknown, how can he affirm or deny anything in regard to it?"‖ But the theistic bearing of Hamilton's philosophy is, perhaps, most positively indicated by Professor Fisher of Yale. "Sir William Hamilton," he says, "notwithstanding his adoption of Reid's natural realism, and his distinction between the primary and secondary qualities of matter, becomes, inconsistently it would seem, an advocate of the relativity of knowledge, in the objectionable form of the doctrine. By this doctrine . . . Hamilton brought another disturbing element into the sphere of natural theology."§ This is rather a severe indictment, drawn up as it is by one of the most far-seeing philosophers of the age. Before we pronounce Sir William guilty or not guilty, however, we must allow him a word in his own behalf. "Our knowledge," he tells us in so many words, "is relative."¶ Further along in another lecture he waxes bold to inform us just what is the nature of this relativity. "Suppose," he writes, "that the total object of consciousness in perception equals twelve; and suppose that the external reality contributes six, the material sense three, and the mind three, this may enable you to form some rude conjecture of the nature of the object of perception."** What we see, therefore, is only half true, and the other "half has never been told."

* "Realistic Philosophy," vol. ii., p. 23.
† "Scottish Philosophy," p. 415.
‡ "Human Intellect," p. 643.
‖ "Christianity and Greek Philosophy," p. 233.
§ "Supernatural Origin of Christianity," p. 618.
¶ "Lectures on Metaphysics," viii.
** Lecture xxv.

According to Hamilton's system, Longfellow's line is philosophically exact—

"And things are not what they seem."

Hamilton's relativity has, as might have been expected, been utilized by agnostics since his day. Thus Spencer is not slow to see the advantage afforded by Sir William: "It is a further belief of M. Comte that all knowledge is phenomenal and relative; and in this I entirely agree. Sir William Hamilton, in his 'Philosophy of the Unconditioned,' has given a scientific demonstration of this belief." * But neither Stewart, Kant, nor Hamilton were sceptics in the popular sense, even although they have furnished scepticism with some mighty tools with which to destroy the household of faith. The very opposite. Sir William was a most devout man, and, according to Dr. McCosh, his last words were "God be merciful to me a sinner." †

Kant had his followers in Germany, as Reid had his in Scotland; and with Kant, as with Reid, they were not always true to their master. Fichte, one of Kant's disciples, pushed Kantianism to its proper goal in his projection theory. The outer world to him was not only one of mere phenomena, as it was to Kant, but it was "only the reflex of the human spirit." ‡ It is a mere projection of the mind. This annihilates external reality entirely, and leaves a man in possession of nothing but his own shadow. Kant, as was natural, denied Fichte, and accused him of preaching "another gospel."

Hegel is the logical offspring of Fichte. For if all existence is purely mental, then mind is absolute and universal. The absolute mind is the totality of what is. All mind is consequently one mind. There is no individuality or personality in God, man, or things. God, indeed, seems to be the offspring of fate. He is not only the Creator, but He was Himself created. Nothing seems to have moved, by a necessary law in the nature of things, across to its exact opposite, something. Seeing that all opposites are really consolidated in a universal whole, strange as the Munchausen tale may seem, nothing appears to have become

* "Essays Speculative and Practical," iv.

† "Scottish Philosophy," p. 455.

‡ Everett's "Fichte," p. 285.

something. God, with all else, if there be anything else, is thus the product of a sort of spontaneous generative thought-movement. In both the Hegelian and ancient superstition there seems to be an unmerciful fate, even behind Jupiter. The human mind and the divine mind are not only the image the one of the other, but they seem to be one and the same. Hence human acts appear to be God's acts. "This, too," he tells us, "is the true theodicy, the justification of God in history. The human spirit is capable of being reconciled with the course of past and present history only when it sees that that which has happened, and which is daily happening, has been and is, not only not without God, but in an esssential sense the work of God Himself."* The learned Bledsoe's "justification of God in history," however, is that man is a free, self-determining spirit, and consequently the author of the misdeeds and wrongs of human history. He even finds in this statement of the case that God is justified although man should be eternally ruined.† To the one who has made Bledsoe his own on this subject, Hegel and Spinoza will appeal in vain.

The Tubingen school of historic criticism is made up mainly of Hegelians, and their opposition to the Christian miracles is rightly traced by Prof. Fisher to this cause. For "a philosophy which denies the distinct personality of God, and consequently must regard prayer an absurdity, can by no legerdemain be identified with Christian doctrine. The appearance of the 'Life of Christ,' by Strauss, and the subsequent productions of Barr and his school, through the application which they made of the Hegelian tenets to the New Testament history and the teaching of the Apostles, placed this conclusion beyond a doubt."‡ Hegel's ideal pantheism opened the way for the new German materialism under Prof. Haeckel—a materialism which teaches the monistic unity of all things. It is the materialistic outcome of Hegelianism. Hegel's monism is mental, while Haeckel's is material.

But action and reaction are equal to each other. The one

* Morris' "Hegel's Philosophy of History," p. 306.

† "Theodicy," p. 305.

‡ "Supernatural Origin," p. 557.

swing of the pendulum implies the other. The reaction, many observers believe, has set in in earnest both in Germany and in Scotland. Hegelianism is having a sort of heraldry in Scotland by some, but it is proving too flighty for the land o' cakes and the countrymen of Thomas Reid. I was amazed, however, while visiting some friends at Glasgow University in 1887, to find not only some of the students affected by what McCosh calls "a hopelessly entangled dialectic," but that it was even receiving the countenance of some of the professors. This fact made me wonder what Mr. Reid would say could he revisit his old college. But the common sense of Scotland and mankind is against it and all other systems that do not make a clear distinction between spirit and matter, and insist upon the testimony of human nature to the fact that we come directly in contact with soul, God, and objective things. This is the philosophy that is steadily gaining ground as all other systems crumble and decay. Others may have their crusading spasms, but this one, because it is the truth, abideth forever. It is built upon the rock of endless ages, and will endure amid all the storms of animal passion and mental bias. It is now found in many of the great universities of Europe and America, and is scaling the seats of imperial learning in Japan; and this, too, in spite of the strenuous efforts being made by many to establish agnosticism as the philosophy and religion of that progressive country. In view of its past triumphs, and inevitable future victories in a practical age, we are constrained to exclaim with Cicero: "Oh! the power of truth, for it defends itself!"

We shall know the truth, and the truth shall make us free.

PROF. GEORGE S. MORRIS: HIS LIFE AND HIS PHILOSOPHY.

[Contributed to the Institute.]

By Prof. A. B. Curtis, Tufts College, Mass.

AS it is one of the aims of the American Institute of Christian Philosophy to represent the progress of philosophical thinking in our own country, and the men who have been most influential in carrying on this work, and as it is the special aim of the institute to represent and defend that philosophy which is in accord with rational and high morality, it would seem especially fitting to review here the life and teachings of Prof. George S. Morris, Ph.D., lately Professor of Philosophy in the University of Michigan.

Minister and lecturer alike are fast coming to see that the way to teach most powerfully and effectively is through the person. Dogmatic statement and abstract theory have their place; it is doubtful if we shall ever outgrow the need of them. But these are not the tools of the reformer. They help to hold what has been achieved, they are excellent as stepping-stones, as feelers after truth, it may be, but the real reform, the real argument that wins, is the personality. Other things being equal, there is more power to move society in the story of the life of a virtuous man than in any abstract essay on virtue, however ably written and forcefully presented.

The life of Prof. Morris is especially fitted to teach us that the fruit of a systematic, negative attitude towards religion is death. He was born and bread a Calvinist, and the teaching to which he was early submitted laid more emphasis upon the Calvinism than upon the Christianity. Accustomed to interpret Christianity in accordance with standards narrowly orthodox, his reading in philosophy, for which he early developed a taste, opened to him serious conflicts. By nature he was religious in the best sense of the word. He entered Union Theological School with the ministry in view. Here it was that the crash

came. He decided that a theoretical solution of the great problems of the universe was impossible. What called him back again to a firm faith in Christianity was not so much a new philosophy, or an old system more ably defended, as a life, a life so full, complete, and well rounded that it at once dissipated the agnosticism that had begun to settle over him. Ever after Prof. Morris stood upon the larger vantage ground, and from this summit he taught and with these ideals he lived in constant communion.

George Sylvester Morris, Ph.D., was born at Norwich, Vermont, Nov. 16th, 1840, and was graduated from Dartmouth College, just across the Connecticut river in 1861. Immediately upon graduation he obtained the principalship of Royalton Academy, where he remained but one year. The following year, with many others from our northern colleges, he enlisted as a volunteer in the army. But *alma mater* would not permit him to become a soldier, and in 1863 he was recalled to Dartmouth and appointed tutor of Greek and mathematics. The following year he took his master's degree, resigned his tutorship and entered the Union Theological Seminary of New York City, where he remained less than two years and left without taking his degree. Prof. Frieze states in one of the University Annuals, that, "Although he did not complete the usual course of three years, he remained long enough to become acquainted with all that is most essential in theological studies, and to receive permanent benefit from the lectures of the strong men who made up the faculty of the school at that time." The truth of this statement is sufficiently established by a review of Prof. Morris' later work, but it is not sufficient as an explanation of the restlessness which is very apparent in the rapid succession of changes that we have recorded.

Prof. Morris was by birth and "bringing up" a Calvinist, by temperament and education he was the farthest possible removed from the Calvinistic tenor. Already these discordant elements had begun to ferment. The philosophy given the student in the American College at that time was very meagre indeed, consisting of a hodge-podge of logic, ethics and metaphysics together with such extracts from the history of philosophy as the teacher

deemed intelligible to the unsophisticated mind. Contrary to the usual run of students, however, Prof. Morris while an undergraduate did not confine himself to the limits of the curriculum. Before taking his bachelor's degree he had read Hamilton's Metaphysics with great interest, besides other important works. After leaving college he read Spencer, for whom Hamilton's implied agnosticism had amply fitted him. Hamilton, as is known, made knowledge of God possible through the miraculous contributions of revelation, and by that means only; Spencer claimed to have closed up this way of escape as easily as Berkeley had demolished the "supposed I know not what" of Locke, and nothing remained in view of these facts but avowed agnosticism. In the Theological Seminary, Prof. Morris continued to think in Spencerian categories. He remarked once that the more he listened to Professors Schaff and Shedd, the more he disbelieved what they said. If what they taught was theology, Aristotle was in error, theology was not the all-inclusive branch of human learning, and the philosophic world was Spencer's own, and his system was bound to conquer. The divinity student had almost reached a point where he did not believe anything. The theological professors were not ignorant of the intellectual ferment in which the young man was placed; seeing, too, that he had the making of a philosopher, they advised him to drop his theological course in the midst of the second year. Germany at this time offered the best answer to the skepticism of Hume, the Mills and Spencer, and thither Prof. Morris repaired. He spent two years and a half in Germany and Switzerland attending university lectures, and learning the German, French and Italian languages. It was especially owing to the keen philosophic analysis and vital Christian faith of Adolph Trendelenburg that Prof. Morris came to see the unsatisfactory and purely negative results of the English empiricists. It was the earnestness and sweetness of religious trust that always appeared in the teachings of Trendelenburg no less than his reasoned truth that won the young American and gave him that ideal of a true professor which he ever after strove to realize. Upon his return to this country, he acted as private tutor for some time in New York City, while awaiting a position as teacher. It was while there that he began

his translation of Ueberweg's "History of Philosophy." There, too, he found and won her who became Mrs. Morris. And to her kindness and her benefactions many a student owes the privilege of remaining a student in the university where her husband so faithfully served. For he had not long to wait; in 1870 he was made instructor in modern languages in the University of Michigan. Eight years later he became lecturer in philosophy in Johns Hopkins. He retained his position of instructor in modern languages at Ann Arbor, however, until 1881, when he became Prof. Cocker's assistant at the University of Michigan as instructor in philosophy, and upon Dr. Cocker's death, in 1883, he was given full charge of the department.

Prof. Morris' pen was always busy. His translation of Ueberweg won the most favorable criticism, and it now finds its place in our libraries with that of Prof. Seelye's Schwegler as a standard work upon the history of philosophy. Prof. Morris was wont to say to his students that the chapters in Ueberweg upon the early Church fathers and upon the metaphysics of primitive Christianity are entirely without theological bias, and the best to be had in the language.

Important monographs of Prof. Morris appeared from time to time upon the Philosophy of Art, Final Cause, Unconscious Intelligence, Immortality of the Soul, and among the latest a paper upon the University Education which sets forth the ideal university life. Prof. Morris believed most emphatically that education was a growth, that it must proceed without haste, without cramming, and should exercise a moulding influence upon the whole being of man, resulting in an ideal akin to the Greek "beautiful soul in a beautiful body." A very prominent trait in his character was his love of the beautiful wherever found. All beauty appealed to him, and he said it was quite doubtful whether anything could be considered as absolutely ugly. Even the hump on the back of a camel or the ungainly form of a rhinoceros might to the Absolute eye have a beauty peculiarly its own. Prof. Morris was a skilled performer upon the piano and used to illustrate his philosophy of music by renderings of his own. He drew a striking comparison in one of his lectures between the building of a house by an architect

and the building of the theme in a piece of music. But his theory of art never rested with the merely physical or sensuous; all these were types of moral and spiritual beauty. To him the beautiful, the true, and the good were not three but one. The truly beautiful must exist in definite harmonious relations with the Infinite goodness. Truth is essentially abstract and one-sided unless it be beautiful. Religion to him was "worship in the beauty of holiness," free from all æstheticism and cant.

Besides lectures, monographs and the translation of Ueberweg, already referred to, Prof. Morris has written four other books. "Philosophy and Christianity" is a series of lectures delivered before the students of Union Theological Seminary, and published by the seminary. The chief merit of this series, which aims to be popular, is to show the intimate relations existing between religious thinking and all thinking. Prof. Morris believed that all right thinking is religious. Truth of whatever sort must be grasped by the mind. And this grasping process is intellectual. Again, religion presents certain phenomena to the student; it raises many questions of a social, ethical or political order. Philosophy, as co-extensive with all knowable reality, claims that here it has a right to utter its voice. It is possible and profitable for us then to turn the cold light of intellect upon religion. What are these phenomena which religion presents? Are they realistics or illusions? "Philosophy," says Prof. Morris, "claims the power to answer these questions by rational methods." Regardless of the methods of divine revelation, religion as grounded in intellect and rooted in will must be rational. Feuerbach and Oscar argue that religion is an illusion, that it is nothing more nor less than a belief which is in conflict with experience and which rests on most exaggerated fancies. That this solution of the problem by cutting the knot is at all worthy of serious contemplation the author of "Philosophy and Christianity" will not for a moment admit. Nay, if religion is an illusion to an empiricist, his proclamation of the same means nothing, for to him there is nothing beyond the phenomenon, the mere appearance. Religion is not an illusion, exclaims our philosopher, not a mere dream, it is rather the most real of all things. Its reality is not show or make-believe, but spiritual. It

is the region where phenomenon and noumenon meet, where all conflicts are solved, where God and man kiss each other. Can the illusion philosophy assail such reality? "History proves that religion is invulnerable." But I need say no more of a book that is doubtless already familiar to the readers of CHRISTIAN THOUGHT. Those chapters on the Bible Theory of Knowledge, of Reality, of Ontology and Anthropology need no praise of mine.

"The British Thought and Thinkers" affords an excellent introduction to the best portions of British thought. The papers were first delivered as lectures in Baltimore, and are partly biographical and partly philosophical. The summaries of the philosophical systems of the English thinkers are remarkably clear and concise. While criticising from the standpoint of the German idealism Prof. Morris was very appreciative of the English character. His paper on Shakespeare shows him as able a critic of literature as of philosophy.

"The English mind," he said, "is far more concentrated upon the vital and practical side of truth than upon the abstract or theoretical side. Truth in its living, effective power so absorbs their attention that little care is left for inquiries concerning its ultimate grounds and guarantees, or for laborious exactness in the statement of it." It is not, therefore, for what British thought has done that Prof. Morris criticises its great thinkers, but for its omissions, for the intensity of this practical side, which has made its philosophy too analytical, too earthy and too much confined to the here and the now.

The exposition of Kant in the Grigg's Philosophical Classics Series, of which Prof. Morris was editor, has been called the best handbook to Kant in the language. It could not, however, be so judged by all, for it is more than a mere exposition of Kant's system; it is at the same time an interpretation and a criticism. And from beginning to end it is a reply to the arguments of the English empiricists. It was David Hume who awoke Kant from his dogmatic slumbers, and Prof. Morris keeps constantly before the reader the fact that the whole "Critique" is an effort to answer the systems of subjective idealism on the one hand and of a gross materialism upon the other. In the body

of the text the remark is made that Hegel is the best interpreter of Kant. And in the introduction, therefore, we find many Hegelianisms. Prof. Morris believed that all consciousness is objective consciousness; in other words, that the first mental act was the distinction between self and not-self. The modern German school rejects this idea, though Lotze admits that consciousness may begin with a distinction between me and my states.

Kant said, "though our knowledge may not derive from experience, it all begins with experience." His opposition between phenomenon and noumenon, or "thing in itself," was very marked, though he admits that perhaps after all that part of our knowledge which experience supplies and that given by the mind itself may have a common origin. Prof. Morris, commenting upon the sense-gained material, says, "In sense itself mind is present with an unchanging nature, law and power of its own. To this extent, therefore, sense, which was at first contrasted with understanding, must the rather be assimilated to it, and Kant's suggestion, that these two trunks of human knowledge may spring from a common root, begins to acquire more than the probability which belongs to a mere guess. The transcendental unity of thought and being was the centre around which all his thought revolved. Subject and object, knower and thing known, cannot simply be space occupying atoms. They are not merely sensible entities or substances mechanically separated from each other. They reveal themselves primarily as activities. They actively unite in one, and at the same time keep themselves differentiated the one from the other. They reveal themselves as forces, and that, too, forces of the only kind that man is able to conceive of without contradiction, namely as spiritual forces, self-illuminated by intelligence and rooted in will. It follows then that being is not simply inertly existing in space; no such existence, considered absolutely, is known or knowable. Being is doing, and doing is in the first and last resort the operation of spirit. But the activity of spirit is not force, but life, and so life in some sense is co-extensive with the realm of reality. It is in view of such results of careful inquiry as these that Plato calls the Absolute the Good; Aristotle, pure

energy, which is the same as mind (and 'energy of mind,' he said, 'is life'); St. John, love; Hegel, spirit; and Christian faith hesitates not to call it God."

Whatever we may say to the philosophy of the above, we feel that those words could only be said by one who has a superior intellectual insight and a superior religious nature. It is no wonder that such a spirit as Mr. Morris' should find agnosticism an attitude too negative and prosaic for his intellectual and spiritual needs. "The positive substance of agnosticism," says he, "is nothing other than physical science," and that the content of physical science was co-extensive with all knowable reality, his whole soul repudiated. It was not to curtail the possibility of knowledge, but to magnify the power to know, that Prof. Morris devoted his energies. While physical science reduces the beauties of poetry, music and all art, as well as religion itself, to mere illusions, philosophy gives back to the soul all these enlightened, purified and beautified.

Prof. Morris' last work, which is an exposition of Hegel's "Philosophy of the State and of History," is of most interest to the ordinary reader. Hegel's "Philosophy of History" is considered by many to be the best introduction to Hegel. At any rate Prof. Morris' exposition of this is the clearest and most practical of all his books.

The principle of growth was made much of by Hegel, and the clearness with which national characteristics are pointed out and their development traced is very interesting. Especially so are the remarks upon the Germanic world. It is the contributions of the hardy Teuton that have given to history its intellectual and religious freedom. And to this we owe the Renaissance, the Reformation and the Aufklärung. The Germans in their original condition were stupid and their ideas were confused and indefinite, but Christianity came to them, they accepted it, adopted its moral and political precepts, and eventually rose to a moral, political and intellectual height where the Christianity they had received became an obstacle to their progress. Then it was that the new era of the Reformation burst forth upon the world and our own age began.

Prof. Morris had in preparation a work upon the History of

Logic, but the manuscript was not sufficiently arranged and developed to admit of its publication.

As a teacher Prof. Morris had no superior. He aimed to inspire as well as instruct. He laid but little stress upon the recitation, claiming that it could not yield the best results of study where carried on by the question and answer method. He was far more rejoiced to see the results of study in added culture and ability to use the facts and principles gathered. He believed that knowledge could best be imparted by first arousing the soul to the consciousness of an ideal purpose, the realization of which is incumbent upon the mind itself and must be its own essentially free work. Thus it is that, through the force of active, recreative mental labor, the truth gained acquires the virtual quality of an original possession that will be always available. As Goethe has said :

> " Was du ererbt von deinem Vätern hast,
> Erwirb es, um es zu besitzen."

A quotation from " British Thought and Thinkers," from the paper upon John Stuart Mill, in which Prof. Morris gives his own ideal of the true educator, we shall find, I think, a sufficiently accurate picture of Prof. Morris himself as a teacher. " Education," he says, " in any proper sense, is essentially the pupil's own work. The true educator is accordingly restricted to the employment of indirect means, or rather, as I believe, he accomplishes his best really educating work without the conscious or intentional employment of any means, but rather through the spontaneous, enkindling flashings of his own life, his own energy of reason, his own energy of love."

As a teacher, Prof. Morris was remarkably successful. He drew his pupils by making his work command their interest. He inspired them with the simplicity of his manner and the beauty of his thought. His life was ever a transparent interpreter of his thought. Especially was he fitted to become a university professor. His own culture was broad, and his study had been cosmopolitan. Out of his culture his work was planned and its spirit and aim were imbued with the university idea. He believed that education should be co-extensive with the possibilities of the human soul. While life is too

short for all to attain even a liberal education in every branch, yet in the university such culture as is possible is most conveniently conveyed. Prof. Morris, as the alumnus of a small college, was aware of the drawbacks that such institutions are compelled to meet, and he believed that the university overcame these. The mere bringing together of men with such diversity of aims and of culture does much to foster the cosmopolitan spirit. Prof. Morris was wont to remark that the University of Michigan ought to be like the English universities ; "it ought," he said, "to have a theological department." No one would have welcomed the enlargement of the state idea of a university in this direction more than he. Not that he believed it the state's duty to teach sectarianism, but it is the duty of the state, he thought, to recognize the fact that every branch of social and political science is rooted and grounded in the moral and religious notions of the people. A university to lay just claim to its name ought to have a "professor of religion." In one sense all of Prof. Morris' work was theological. In one of his lectures he quotes with favor a statement of Aristotle that theology includes all sciences. And especially is it closely related to philosophy. Theology, as taught in a seminary like Yale, is fast becoming almost identical with whole lectures as given in Prof. Morris' courses. Theology is enlarging its borders, is becoming more historical, and Prof. Morris' philosophy was steeped in theism, in morals, in religion. As a teacher of German he never failed to develop all in it that was most beautiful, most elevating, most spiritual. As a philosopher he inspired all by his love for that which was most true and most profound. Says Prof. M. L. D'Ooge, one of his colleagues: "It was his love of truth that made him so enthusiastic a teacher and so devoted a scholar in his chosen studies. To be conscious that he was aiding his students in their apprehension of truth was a real delight. Nothing gave him more pleasure than to be brought into personal contact with those who were interested in his pursuits, and to be of any service to youthful searchers after true knowledge. His wide store of information on philosophic subjects was always at the service of those who desired to draw upon it, but it was never forced upon them, and it

was borne lightly and modestly like a delicate flower."

The department of philosophy was ever growing under his direction and it continued to attract an increasing number of the university students. In addition to the more ordinary philosophic courses, there were offered lectures on ethics, æsthetics, philosophy of the state and a course of lectures, given but once, just before his death, on the philosophy of religion. In accordance with the same lofty aims the Philosophical Society of the University of Michigan was formed. Prof. Morris is the author of the society's preamble, and in it is exhibited his desire that here the students might be lifted out of their special pursuits and ideals and learn to see the unity of all truth. To apply philosophy to life was the professor's great aim. To make truth living and concrete, the goal.

It is not, however, as a philosopher or a teacher, but as a man, that we linger most fondly over the memory of this great leader. When on Sunday morning, March 24th, 1889, the bright new spring became overshadowed by a pall of gloom in the beautiful university city of Michigan, it was not the State's or the university's great loss that first saddened each student listener. There was among students and professors alike a deep feeling of personal loss. The bereavement was deep and universal. By that peculiar selfishness which is not selfishness each thought first of his own personal loss, and was grieved. It was thus that the news impressed me and others have confessed a similar feeling. I was in another State at the time and had just written Prof. Morris for a recommendation. At the report of his death a friend said to me that I would miss now the favor I had expected. The remark wounded deeply. The bereavement was personal, but not such as to be measured by outward favors. Such was the personality of Mr. Morris that to know him was to love him. No one could fail to be impressed with the superior stamp of his character. The delicate and clear-cut lines of his countenance, the tall, graceful form, the refined air and gentle manners, all gave evidence of a rare beauty of character and purity of soul. He had the strength and decision of a man, the simplicity of a child, the sympathetic, sensitive nature of a woman.

His was a life in which Christian faith and exact science came together in perfect accord. Those conflicts, cruel, bitter and for the most part unprofitable, which they produce in the mind, they did not produce in his life. His early doubts and questions had been overcome, without having left a spark of bitterness or harshness behind. Christianity was to him ever a great, positive system of spiritual religion. It alone was the absolute religion. And it was with positive zest and delight that he was wont to expound this to the Sunday-school class which he regularly met in the church of his choice. It was the nobility of his life that made him so valued an interpreter of Christianity. He loved truth for its own sake. It was this that led him to review and recast his old beliefs, and to cut loose from early prejudices and dogmatic notions, the inheritance of boyhood education and environment. But his new freedom was not the freedom of indifference or of caprice, but the freedom of a soul wedded to truth and the realities of the spirit. He did not, therefore, become stranded amid doubts and perplexities, nor was he soured and embittered by the conflict, but he rose, as on angel-wings, to a clear and unshaken conviction of the truth and reality of the fundamental doctrines of the Christian faith. None of the university professors was a better adviser than he in times of religious perplexity. "He had been there himself most decidedly," as another of the university professors once said of Carlyle. Says Prof. Frieze, "He had been to the bottom of all the German and French systems upon their own soil. He had studied widely in materialism, positivism and every other ism, and yet thoroughly accepted an enlightened, personal faith in the great truths of the Christian religion." Christianity was to him eternal truth and he lived it and loved it.

Out of his love for truth, in this vital sense, grew his love for nature and all that is natural, the symbols of truth. Nature, and especially the artless innocence of the child-nature, possessed for him a peculiar charm. On the last day of his life, I am told, without apparently realizing his condition, he was heard to remark that he wished he might spend another day in the woods with his children. A strong intellectuality was also a prominent trait in his character. I do not mean by this mental grasp,

simply, nor the power to remember facts and circumstances, but intellectual insight and appreciation. Into all his conversation and into every page of his books there was instilled the unmistakable riches of a deep and broad spirituality. "The clear light of reason was his congenial air and the thought element in anything was to him its chief attraction." "Life," he used to say, "is energy of mind." But mind with him, as with the Hebrew prophet, included the heart. He was a most unassuming and charitable friend to all, quick to respond to every call of duty and every demand upon his sympathy. With those who knew him best he was most affectionate and tender. Much as the student gained from the completeness and fairness of his knowledge, the clearness and force of his expositions, he gained infinitely more from the man. He seemed to be so near his own ideal of manhood—to be, as he was wont to say, in other connections, "living truth." In him intellectual and moral were at one; righteousness and truth met. All who met him felt an uplifting. And his life lives on in the lives of those who have found new meaning and new riches in living, because he lived. Philosophy called out the service of his intellect and the devotion of his heart because he saw in it a means of rising out of self to that other Self who is God, of whom all knowledge, all experience and all history are but revelations.

ETHICLESS DATA.

[Read before the American Institute of Christian Philosophy, October 5th, 1891.]

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HERBERT SPENCER has not been superseded as the systematizer of ethics among evolutionists. The "Data of Ethics" does not yet take a place among "quaint and curious volumes of forgotten lore." It has all the freshness of standard authority in a theory of to-day. It comes, however, in such a questionable shape that we may speak to it. Its author is never to be accused of trifling, else we might suppose that, in a merry moment, he had written about ethics, omitting the ethics, thus proving the old distich, that

"A little nonsense now and then
Is relished by the wisest men."

The exact opposite is the truth. Mr. Spencer was never more in earnest. The book was written to snatch completion of his system from the jaws of death. Although these fears were groundless, the "Data of Ethics" was intended as a philosophical last will and testament. In reviewing it, if at any time we have varied from a strictly philosophical treatment, by introducing the theological, we might excuse ourselves, since Spencer leads the way by sneering at the "Christian ascetics," "the moralists," and "the theological root," to him so odious. Swallowing the provocation, we show cause in the fact that the race has (somehow) come into possession of an ethics alleged to have been given supernaturally both as to code and man's responsive faculty—the conscience.

The purely philosophical method arrogates to itself the power to explain first principles, and frame a code that has so small a a place for the theological idea as to practically relegate it to the department of microscopy. But a theory of ethics must not commit suicide, and since we have no data as to the existence of human conduct without the direct or reflex influence of some

"theological root," necessity requires prominence for it, even in the scheme of evolution, instead of the unwilling and stingy admission accorded. At critical points we are reminded of the wonderful feats of prestidigitation. The evolutionist scales the fence, hastily picks up a principle from "the moralist's" territory, incongruously adopts it, and relies on his bewildering quickness to escape detection. Excepting those helps, the data given are non-moral, and the successful shading of these into ethics can only result in moral color-blindness. Spencer's distinctive data are ethicless.

I. The Nth Power of X.

"How far the unknown
Transcends the what we know." —*Longfellow.*

Evolution furnishes an interesting hypothesis on biological lines and captivates with its ready explanations of physiological structure. Interest gives place to alarm when the field of ethics is entered, and obligation goes rambling hither and yon. Responsibility becomes mercurial, and change in temperature drives it up the tube, or drops it into the bulb. Given a sliding scale in ethics, and human nature contents itself with lowest markings. Man, the descendant of the moneron, has inherited a changing ethics, hence the good is not absolute but relative.

"There is a supposable formula for the activities of each species, which, could it be drawn out, would constitute a system of morality for that species "("Data").

We need some formula, and are supplied with the adjustment of acts to ends—or more fully, the continuous adjustment of internal relations to external relations.

We are delighted that ethics requires the worms to wriggle away from small birds, and that proper conduct in small birds compels movement of wings to escape the hawk, but we are again reduced to despair when ethics commands the hawk to use its superior wings and cruel talons, whilst the properly-constructed beaks and internal arrangements of the daintier birds must be employed in the destruction of worms and larvæ.

We are willing to revise the argument, but Spencer holds us

for "death by starvation from an inability to catch prey shows a falling short of conduct from its ideal." Probably as the hawk swoops down and clutches his prey, it only feels the eternal fitness of things in its excellent adjustments—conditions fostering *the pleasant;* and the little bird *in articulo mortis* must remember it had its day of pleasant chuckling over crushed bugs.

Spencer takes us by the hand, but we cannot keep up with such gigantic strides, as he steps from peak to peak, and we ignominiously tumble again into the valley of humiliation. With his assistance, we had discovered "a system of morality for that species," only to have it characterized as this imperfectly evolved conduct, and are further told that "the conduct to which we apply the name good is relatively the more evolved conduct." At any given stage *that* is the most evolved conduct, and is good at least *pro tem.* But in an ethics of mechanical adjustment, we are confused as to the good of a little bird seeking to escape the hawk whose talons were evolved for its destruction; or, the good of the hawk pursuing a bird whose wings were evolved for flight and escape.

Since Spencer declares the conduct with which ethics is concerned is only a part of conduct at large, and since this is the subject of evolution, and changeful at every stage according to environments, a perfect morality is inconceivable. At what point may the evolved subject pause and say, Eureka! I have found the good?

Spencer himself furnishes the emphasis. "There will seem a strangeness, or even an absurdity, in this presentation of moral conduct in physical terms. It has been needful, however, to make it. If that redistribution of matter and motion constituting evolution goes on in all aggregates, its laws must be fulfilled in the most developed being as in every other thing, and his actions, when decomposed into motions, must exemplify its laws. This we find that they do. There is an entire correspondence between moral evolution and evolution as physically defined."

Thus, then, man the developed animal, at every stage—polyp, ape, savage or civilized—has only a temporary ethics. Let it be granted that evolution has worked out a true ethics,

it is conceivable that other results might have been attained. Would that then have been a true ethics—in brief, is ethics a floating quantity? If conduct is to be gauged by environments, would polygamy be right where females exceed the males, or is monogamy right for all time, and in all circumstances? According to the alleged data, the rightness of monogamy is only discoverable by experience, and until this is attained the polygamist may have a true rule of conduct. During the trial, conduct can only be tentative, and the declared result will probably lack universal assent. What then will be the exact moral status of "the imperfectly evolved" dissenting nation or individual? Ought the everlasting symbol to be, Let $\pm x^n =$ human conduct? Spencer, however, has faith in humanity's getting something substantial after a while. In the *Popular Science Monthly* he prophesies concerning Religious Retrospect and Prospect as follows:

"By future more evolved intelligences the course of things now apprehensible only in parts, may be apprehensible altogether, with an accompanying feeling as much beyond that of the present cultured man, as his feeling is beyond that of the savage."

Meantime, during these transitional centuries, how else shall the moral walk through life be characterized than as a go-as-you-please?

II. The Trick of the Trade.

"Tricks he hath had in him which gentlemen have."

—*All's Well that Ends Well.*

"It proved an intellectual trick—no more."

—*Emerson.*

Not the gross trick of the grocer in the adulteration of staples; nor the base trick of the politician in mixing the prejudices of the people with his own sophisms; but the intellectual trick of surreptitiously introducing words without sifting their contents. The usual result is either ambiguity, or a positive begging the question. Thus when Mr. Mill seeks to establish the idea of externality he says, "I see a piece of white paper on a table, I go into another room," and so on with majestic step, utterly ignoring the fact that "as yet we know nothing

of 'white paper,' 'a room,' 'another room,' least of all can we be aware of being 'in circumstances,' all which imply the very externality he is seeking to gender" (McCosh, "Defence of Fundamental Truth").

In like manner Bain gives us a sweep of the limb, before he has convinced us that we have a body. It is not strange that when any of these gentleman enter the department of ethics, they make quiet appropriation repeatedly. Words have some rights that should be respected. They can lay claim to a meaning. They cannot enter suit for defamation, yet their character may be whispered away. Once in a while there is resistance. An eminent lecturer could not compel "solar light" to give up its meaning. The change was too violent. The quiet way is the easier. Thus Draper succeeds in bringing on a conflict between science and religion that would have deceived nobody, if he had said (what he meant) the Roman Catholic Church. It seems ungenerous to refuse Mr. Spencer the right to christen his own book. There is, however, more to knighthood than mere dubbing. Spencer professes to give the data of ethics, and then disembowels the word. Ethics means more than conduct. It is qualified by human. The movement of an automaton is conduct, but not ethics. "He has not entered the subject of ethics, which has to look to character, and to voluntary acts of human beings" (McCosh). A popular misconception is that evolution always has an upward trend. In bodily structure it is said to be from the homogeneous to the heterogeneous. Yet Huxley finds the horse with its club-hoof evolved from a four-toed horse —the *orohippus!* In the "Data of Ethics" there is a steady assumption that morality is always ascending. It is traced from the simple movements of mollusks to the complex relations of civilized individuals and nations. The fact is blinked that foremost nations have sunk in degeneracy. It is only poetry to speak of unworthy sons of illustrious sires. When we descend the scale of being, with Spencer, to examine the beginnings of conduct (not ethics, certainly) he shows that "to-day's wanderings of a fish in search of food . . . are unrelated to the wanderings of yesterday and to-morrow." There is no terror for evolution in a hiatus. The next sentence passes confidently

from such aimless, fishy wanderings to the actions of more developed creatures with "sets of motions which form a dependent series extending over a considerable period." And so forward, double-quick! It does not take time to resolve vulgar doubts, as to how continuous, voluntary conduct is to be evolved from lowest aimlessness, and mechanical movement. The Oriental beggar deafens you with cries for *backshish.* On the contrary, these mild-mannered data, insinuatingly suggest that "conduct with which morality is concerned passes into conduct which is moral or immoral by small degrees, and in countless ways." But precisely that is the question, and it is not to be dismissed by a wave of the hand, however graceful.

It is to be expected, in any development theory, that conduct which can be first termed human is seen in lowest types, and from these evolve the family, the state, and society in its complexity. Unfortunately we are here remanded back to a region without data, since the "theological root" is rejected. It does not go without argument that the primitive state was one of savagery. Curiously enough some of the best-evolved nations, instead of retrospective barbarism, regretfully thought of a vanished golden age. Tradition aside, the tendency to degeneracy remains. William Cullen Bryant is credited with expressing a preference for the belief that the monkey is a degenerate man, rather than man a regenerate monkey. On a kindred topic Mulford says: "There is no trace of the natural man, and of the primitive age which they portray. They are assumed as the necessary material out of which to construct the artificial systems of political schools. They have no foundation in the nature or history of man."

Whilst we cheerfully grant the right of evolutionists to indulge in myth-making, we strenuously resist the effort to foist myths upon us as history. Arguments may be beautifully interwoven; it is well, however, to look to the texture. Accepting evolution, it must be insisted upon that mankind is the heir, everywhere, of all the centuries of evolution. "Neither savagery nor civilization, as we now see them, can represent the primeval condition of man. Both of them are the work of time. Both of them are the product of evolution" (Argyll, "Unity of Nature").

Or as Bushnell states it (in "Nature and Supernatural"): "The first stage of human society was simply a stage of crudity, or crude capacity, and was not more remote from the state of high civilization, than it was from the low decrepit animalized condition, which we now designate by the term savage."

It remains to note that words of moral significance creep in stealthily, such as fraud, calumniation, injustice, etc., and their opposites. The consideration of this, however, belongs more properly to our next division.

III. THE NEXUS.

"Duty! wondrous thought—whence thy original?"

—*Kant.*

"In it order grew from Chaos, Light out of Darkness shined,
Design sprang up by Accident, Law's rule from Hazard blind,
The Soul-less soul evolving—against, not after, kind,
As the Life-less life developed, and the Mindless ripened mind
In this fine old Atom-Molecule
Of the young World's proto-prime."

—*London Punch.*

Ethics not only reaches forward into theology, sociology, and politics, but backward into psychology and biology. The "Data of Ethics" is a correlate of evolution, and we readily find the ear-marks, thus, "There must arise a consciousness." It is no pun to say that this style of argument is very musty. We find it throughout.

Is it heredity or unconscious cerebration that causes the evolutionist to resort to miracle at critical points? We want life from inert matter, and spontaneous generation (Haeckel) helps us out. Given life, and development is responsible for the rest. But let us see. At what point and how does thought become a principle of the cerebrum? Does thought ever rise above mechanical action in the brain? If so, how is the voluntary principle introduced? What is the connection between intellection and sentiency? Which is first evolved, intelligence or morality? This is not an idle question, for, according to Spencer, intelligence and morality must either be synonymous terms, or morality, since it is based on the pleasure-giving, is evolved first!!!

This will bear emphasis, all the more because Spencer gives

it as a corollary, thus : "Clearly as fast as accompanying sentiency arises, this cannot be one that is disagreeable prompting desistance, but must be one that is agreeable prompting persistence. . . . On the one hand, setting out with the lowest living thing, we see that the beneficial act and the act which there is a tendency to perform [content of tendency is not given.—T. E. F.] are originally two sides of the same, and cannot be disconnected without fatal results. On the other hand, if we contemplate developed creatures as now existing, we see that each individual and species is from day to day kept alive by pursuit of the agreeable, and avoidance of the disagreeable."

This quotation gives us an incipient psychology with a vengeance. Fairly reduced it means that since the rule of conduct depends upon the pleasant, morality begins before there is knowledge of it! The pleasant act is necessarily before its effect. The repetition of it is the rule of conduct. Perhaps the most fatal flaw in the ethics of evolution is, its failure to show the passage from merely mechanical movement to voluntary and responsible action. Any theory which, notwithstanding disclaimers, reduces to necessity, thereby eviscerates ethics. The penitentiary and the laurel are alike superfluous. Praise and blame are emptiest breath. Hear Spencer : "The experiences of utility organized and consolidated, through all past generations of the human race [including the pre-human.—T. E. F.] have been producing corresponding nervous modifications, which by continual transmission and accumulation, have become in us certain faculties of moral intuition—certain emotions responding to right and wrong conduct, which have no apparent basis in the individual experiences of utility" (Letter to Mill).

Note that transmitted nervous modifications have become faculties of moral intuition. After this, the deluge! Elsewhere, strongest nascent motor excitations (overpowering the weaker) produce an action, which is declared to be nothing else than a rational action. Necessity being established, the words of moral significance, alluded to in the preceding section, may as well vanish from our vocabulary, and their retention can only be maintained for purposes of mercy, that their misty meaning may hide man's helplessness.

IV. Springs and Tests of Conduct.

"All my springs are in Thee."—Psalm lxxxvii.

"Habit with him was all the test of truth,
It must be right; I've done it from my youth."

—*Crabbe.*

It is not so much our purpose to inquire into the true test of morality, as it is to examine the criteria given. We venture the proposition, that if man is under moral government, virtue consists in voluntary obedience to moral law, the motive being the desire for conformity to this law. Carefully canvassing our definition we think we find every element, namely, law, law apprehended, action (or restraint from action), and proper motive. The Spencerian system requires, (1) the evolution of conscience; and (2) the development of a law. The latest on the evolution of conscience is from a theistic standpoint. Let us see what light is shed by Rev. F. H. Johnson in he *Andover Review.*

"To begin with, I think we may safely say, that it originally came into being as the result of conflict in a soul possessed of reflective reason." Mr. Johnson begins ather high up the scale, and unfortunately cannot be cross-examined about a soul and reflective reason, but later on he gives us an entirely suppositious case. 'Let us suppose, that in the crisis of a conflict between two instincts, there sometime emerged the perception that one course of action would result in a superior, or more satisfactory self than the other, and at the same time, a sense of obligation to realize the superior self because superior."

Here we have a sample of the ease with which a camel gets into the tent, when permitted to shelter his head under its folds. See how much can "emerge"—a perception, comparison, apprehension of cause and effect, of ideality, and of obligation. Certainly that was a "crisis" for the not-yet-moral anthropoid. In this moment of triumph, however, the writer frankly tells us, "Conscience is evolved. I do not pretend to say how. It is there." Mr. Johnson arrives at last at a point from which he might as well have started—"Wherever we come upon factors in evolution that defy analysis, it is our privilege and duty to recognize God as acting immediately."

Spencer does not make such weak admissions, yet all we can say for his argument is that we get the impression that somehow the moral sense has been evolved. Diligent inquisition fails to find the point of transition. In following the "Data" a moment ago, we had conduct clearly non-moral, but gradually we find real morals introduced, such as good, bad, etc., and we puzzle ourselves at this tree bearing ruit not after its kind, indeed the tree itself is changed, and *mirabile dictu*) we are in possession of that tree with the despised "theological root"—the tree of the knowledge of good and evil. However dissatisfied we may be, it is ours to pursue the inquiry as conducted by Spencer. Taking as a primal principle that goodness or badness is adaptation, well or ill, to achieve prescribed ends, we are told that "fit connections between such acts and results must establish themselves in living things; even before consciousness arises, and after the rise of consciousness, these connections can change in no other way, than to become better established."

This is traced in a plant, an insectivorous plant, and unconscious animal organisms. Now we do not want acts and results to change in any other way, but we long to have fitness give an exhibition of inherent morality. We shall not trouble Mr. Spencer with the fact that poison may be good, that is, adapted to achieve the prescribed end, but we do insist on his telling us how the mere feeling of fitness can pass into the sometimes unpleasant feeling of oughtness.

If the ought is placed on the ground of self-preservation, since "we regard as good the conduct furthering self-preservation, and as bad the conduct tending to self-destruction," we reply that we need first to know it to be a duty to preserve ourselves. Take a case in point. A man died here recently, who for years had been almost as helpless as a child. He desired death, then why should he not

> "Take arms against a sea of troubles,
> And by opposing end them?"

Let us apply the tests.

Fitness—he had survived physically fitter men, and his fitness was to suffer. The Pleasant—had given place to continuous

pain. Altruism—he was a constant tax on the scanty means and nervous energy of his family. How shall we say to such an one, Live ?

This was a good man: let us descend a little. Society, as well as the individual, has a right to self-preservation. Why should vile human vermin not be drowned like rats ; or thieves and gamblers not be hunted down like other beasts of prey ? Why not put to death deformed children, who would only be a pain to themselves, a care to others, and a damage to society by transmitting their deformities ?

We shall take occasion later to consider the pleasant as a motive and rule of conduct, meantime let us turn our attention to criteria designated as experience, consequences, or effects, and found in the "Data" thus, "Conduct cannot be made good or bad by law, but its goodness or badness is to the last determined by its effects," and again, "an adequate restraining motive . . . arises from the inherited effects of experience." Experience, certainly, but whose ? Be it remembered that the nineteenth century Fuegian is as much the child of experience as the modern Englishman. If experience has all the ingredients of morality, it combines betimes to form wondrous mixtures. Perhaps the very vagueness of the word constitutes its charm to the experientialists. Unfortunately we touch the theological, when we reply that the first Thou-shalt-not found (and to the child still finds) no echo in experience. It must be an interesting feat in mental gymnastics to apprehend a law which has not priority. When overtaken it should be required to tell when its rightness began.

Mr. Spencer will not be outdone by theologians, and takes his place among the prophets of a millennium in human experience. "Evidently, then, with complete adaptation to the social state, that element which is expressed by the word obligation will disappear. The higher actions required for the harmonious carrying on of life, will be as much matters of course, as are those lower actions which the simple desires prompt."

There are two serious objections to the use of consequences as a test of morality. First, it transfers goodness from sensi-

bility and will to intellect. It throws the emphasis on judgment rather than motive and volition. Hence, second, immorality has its nearest synonym in ignorance. Unless this toning down of guilt reassures us, we must perpetually remain in the slough of despond, for who short of omniscience can know consequences in all their ramifications? Fortunately the chances are even. Through perverse consequences actions may unintentionally be wicked; but then one may blunder into goodness, as when Jacob's sons "saved much people alive" as a consequence of that infamous transaction with the Ishmaelites. On the other hand, who of us, after best endeavor, have not had occasion to exclaim, "O most lame and impotent conclusion."

One singular development in Mr. Spencer's discussion of consequences is, the evident absence of the word concomitancy from his dictionary. If a fisherman says that he is angling, because the law of his body demands food and exercise, he must not add that incidentally he takes pleasure in fishing, because then it is at once apparent that this pleasure is the motive-power, the other being merely "the diffused consequences." Let Spencer speak to the point himself. "Here we see how entirely wanting is the conception of cause. This notion that such and such actions are made respectively good and bad simply by divine injunction is tantamount to the notion that such and such actions have not in the nature of things such and such kinds of effects. If there is not an unconsciousness of causation there is an ignoring of it."

To which we as briefly and earnestly reply, that if there is not an unconsciousness of the ideas of quality and concomitancy, there is an ignoring of them. Since the Divine Legislator has made beneficialness a quality of His law, therefore the quality is the law itself!

V. STRIVE TO ENTER.

"Many flowering islands lie
In the waters of wide Agony."

—*Shelley.*

"Dare to look up to God and say, I am Thine,
I refuse nothing that pleases Thee."

—*Epictetus.*

Strive to enter is not an idiom of evolution. The shibboleth

here is the phrase, struggle for existence. A survival of the fittest, on the line that the weak must go to the wall, may be expected to foster a super-abounding egoism. Just how a beneficent altruism is to be introduced does not so readily occur. In examining the probable effects on ethics, in this struggle for existence, be it remembered that there are neither helping nor hindering (see "Data") divine injunctions. Development single-handed is to evolve that which was not involved, unless lifeless matter held conduct in embryo. To meet possible objection here, we adopt the language of Francis L. Patton concerning Spencer (CHRISTIAN THOUGHT, July–August, 1884): "If he be held to a strict interpretation of the formula of evolution, which he regards as the key to the unification of all knowledge, his system, as Malcolm Guthrie shows, is materialistic, and allows no room for theism, in any sense worthy of the name."

From lowest living organisms, all the way up, the search after the pleasant (conversely the avoidance of the painful) is the principle of development. Some creature has, somehow, by malformation, accident or disease, a sensitiveness to light at some point. The gratification in the case is indulged, and soon we have an optic nerve. We beg to stop here a moment, and note the perilous condition of our most remote ancestor. Lacking experience and without instinct, it could not know how pleasantly food would satisfy its cravings. It was left to happy accident to feed it, and might have—but this digression shows that we have been eating "the theological root," and lack scientific, or as Mr. Huxley would say, philosophic, faith. There is nothing of which Mr. Spencer feels more assured than that conduct springs from the pleasant, and is to be judged as to its pleasurable effects. The sections in his chapter on good and bad conduct reiterate in this way: "Conduct is good or bad according as its total effects are pleasurable or painful." "The good is universally the pleasurable." "Goodness or badness really originate from our consciousness of the certainty or probability that they will produce pleasures or pains somewhere." "The moralist has . . . no choice but to fall back on their pleasure-giving and pain-giving effects." And so on continuously.

From his genetic data, let us see whether we can obtain

ethics with a moral struggle, not *between* individuals, but *in* the individual. The little homogeneous bundle of life found pleasurable sensation at some points, by indulging which heterogeneous parts are developed; and, having been developed, continued indulgence brought added pleasure. Self-gratification has then become a rule of life, and now we leave Mr. Spencer to apply his nascent motor excitations, and transmitted nervous modifications, with something like Gratiano's feeling in the "Merchant of Venice," "Now, infidel, I have thee on the hip." For, in the history of our ancestors at every stage—swimming, creeping, flying, or in the tree-tops—the survival of the fittest only demonstrated that might is right. In the struggle for existence somebody else's existence must be crushed out that our pleasure be secured. There is food for ten; the eleventh must be gored to death, or crowded back to die of starvation. 'Tis true, 'tis pity, and pity 'tis, 'tis true, that after five thousand years at least, and with a higher ethics taught, this ethics of animalism so largely obtains.

But we are ignoring altruism. No, we simply deny it a place here. Mr. Spencer is not to be permitted to resort to the miraculous. He cannot validly introduce the altruistic, when the egoistic is the genesis of, and by transmission continues the rule of life. Hume had told Lord John Russell that the object of legislation is the greatest good to the greatest number. When asked to explain the greatest number, he answered, "Number one, my lord."

That modern cynic Carlyle vigorously describes Pig-philosophy, and touches the ethical thus: "What is justice? Your own share of the general Swine's trough, not any portion of my share. But what is my share? Ah! there in fact lies the grand difficulty upon which Pig-Science meditating this long while, can settle absolutely nothing. My share—humph—my share is on the whole whatever I can contrive to get without being hanged, or sent to the hulks."

The lower orders gratify their appetites and develop themselves on the line of gratification—of the pleasing—and the "Data of Ethics" reduces man to the same plane of action, bringing him to this lower level. We oppose to Spencer's iterations

this thought again, that a beneficent altruism does not readily evolve from egoism. We rely on memory, since here we cannot quote, concerning Mr. Darwin's experiments with the common rock-pigeon. Careful selection, under the guidance of intelligence, gave varieties, with the constant tendency to reversion. But in the development of morals, Spencer leaves us to believe, either that this goes on mechanically, or if intelligence is to be posited, leaves us to puzzle ourselves over non-moral intelligence. We cannot make bricks without straw. He gives us a hopeless task.

Another problem presents itself. A course of conduct produces a degree of happiness; then that which brings more is more right. Dropping the absolute, it will be awkward at first to say positive, right—comparative, righter,—superlative, rightest. Yet this is meant to be the trend of ethical evolution.

In the struggle for existence of righteous principles, we note that governments have arrayed themselves against them; moneyed interests and vested rights have opposed; society has antagonized; and most calamitous of all, our own desires and love of ease make us allies with these potent world-forces. What shall lift us out and up? The answer is an inherited conscience! The London *Spectator*, commenting on the triangular battle between Vernon Lee, Miss Power Cobbe, and Allison Pictou, pertinently says: "The young man does not show his metal by merely accepting the morality of his set, but by aiming at a higher morality. The generation does not show its morality by conforming to the standard of its fathers, but by pushing beyond it. Now, if this be so, whence does this force, which so far from being transmitted by the accumulated experience of our ancestors definitely transcends that experience, proceed?"

Only by filtering away its meaning can strive to enter be made synonymous with struggle for existence. If the lower level is educable only through a feeling of want, and if rising to a higher plane that feeling is fully satisfied only in union with supreme good, then two things follow. First, the thought of God cannot be eliminated from human conduct; and, second, God is Himself the ultimate object in the domain of morals; thus we fetch a compass to the starting-point given us by Epictetus:

Dare to look up to God and say, I am Thine ; I refuse nothing that pleases Thee.

VI. In Nubibus.

Pheidippides—" Law ? pray who made the law ? A man I suppose,
Like you or me, and so persuaded others :
Why have not I as good a right as he had
To start a law for future generations ?"

—*Aristophanes : The Clouds.*

" Drop down, ye heavens, from above, and let the skies pour down righteousness."

—*Isaiah.*

The clouds, measureless, opaque, and driven by the winds, furnish a fitting figure for the ethics of evolution. It is not amazing that Hobbes finds refuge in despotism as ultimate authority. " The will of the magistrate is to be regarded as the ultimate standard of right and wrong, and his voice to be listened to by every citizen as the voice of conscience " (Analysis by Dugald Stewart). An easy ethics, perhaps, but where will the magistrate get his voucher ? In the " Data of Ethics " it is made to appear that morality depends human laws. Lord Selborne in a " Modern Symposium " maintains the exact opposite, that the power of human laws depends upon morality. We have already chased ethics as an unknown quantity, and decline further pursuit. There is, however, a better sense in which ethics is in the clouds, and in this respect we are surprised to find a groveling ethics seeking to soar.

This school of Relativists, which abjures the Absolute, finds use for its terms. " Death by starvation from inability to catch prey, shows a falling short of conduct from its ideal " (" Data "). At this early stage, with creatures subject only to instinct, it is proposed to introduce ideality, and hereafter keep it in the scheme. We enter a demurrer, and ask the evolutionist to show cause why actions at each stage of development are not good *pro tem.*

One other phase of an ethics in the clouds remains. It is immortality and the balance-sheet. By ignoring these as factors in ethics, Mr. Spencer finds not merely Christian ascetics, but the *consensus gentium* arrayed against him. His only use for

them is to illustrate his greatest happiness theory. We have tried to meet that in the section, "Strive to Enter," but necessarily meet it here again. Mr. Spencer may state it: "The sinfulness of breaking a divine injunction was universally at one time, and is still by many, held to consist in the disobedience to God, rather than in the deliberate entailing of injury."

Evidently Mr. Spencer cannot understand how injury is a concomitant of disobedience. He can see evil in the injury, but not in the disobedience which caused it. Again, "Even now it is a common belief that acts are right only if performed in conscious fulfilment of the divine will—nay, are even wrong if otherwise performed." Here we have a specimen of *ad captandum.* In the last analysis, rightness will be found to be conscious conformity, from a pure motive, to a perfect standard. A perfect ethics seeks harmony here, happiness being only its accompaniment. Ethics carries over. If there is an ought in human life, there is an enforcer, and enforcement of that ought, somewhere and at some time. Mr. Spencer should not leave us without a balance-sheet. The sculptor's mistake is that Justice blindfolded represents impartiality. Alas, too often she seems stone-blind.

Let Mr. Spencer comfort the widow and children, whose pinching poverty is purchased from a judge by some grasping Ahab. As Mr. Spencer is unaccustomed to the curate's office, let him try this comforting ritual, which Mallock furnishes: "You are not happy now; you probably never will be. But that is of little moment. Only conform faithfully to the laws of matter, and your children's children will be happy in the course of a few centuries, and you will like that far better than being happy yourselves."

THE INTUITIONALISM OF LOCKE.

By Duncan Campbell Lee, Vice-principal of The Cascadilla School, Ithaca, N. Y.

MANY have discussed the legacy which John Locke left to metaphysical philosophy. Some consider him the founder of that destructive school of which Hume became the exponent. They find in Locke the germs of utter scepticism. Others,—and their number is increasing,—affirm that the best philosophy of the present day looks back to Locke as its father; that he founded, neither an agnostic nor sceptical school, nor a dogmatism leading "into an abyss of hypothetical reasoning"; but that he established philosophy on the true foundation, asserting the reliability of our immediate perceptions and that the beginning of all knowledge is presentational cognition.

Philosophy was in a confused condition when Locke undertook to pave the way to knowledge by showing the grounds on which it rests and the method according to which it should be sought. Earlier thinkers had found the guesses of the Grecian philosophers to be but blind gropings—explorations with no base of reference; and they sought to remedy the defect. Descartes attempted to lay a foundation for investigation in his very doubtings. He doubted; and from the darkness of doubt, he took his first step—"*Cogito; ergo sum.*" But at once he lost his bearings. At the close of the 17th century, John Locke, casting aside the hypothesis of Descartes that all knowledge originates in clearness of conception, advocated a new theory in his "Essay on Human Understanding." This production, original in conception and simple in style, stands a fitting monument of the genius of its author. But, unfortunately, it shows so much carelessness in the use of terms, that the determination of what its doctrines are has given rise to many disputes; and the fact that different passages written during the intervals of a busy life apparently suggest opposite conclusions, has augmented this discussion.

A view quite commonly entertained is that Locke is an empiric, and that he denies that we have any intuition of necessary relations. Those who hold this view class him with sensationalists. We contend that this is a gross misrepresentation: Locke is not an empirical philosopher. He does not discard intuitions, as we shall see. He asserts that we can and do perceive concrete fact; but he stops short of the marshy ground of empiricism. He agrees with Aristotle in saying that all knowledge originates, or has its starting point, in the perceptions of sense and consciousness; but neither he nor Aristotle makes all knowledge merely sense and its reproduction. We rejoice that this false idea is being banished from the minds of thinking men and that a great philosopher is being seen in his true character.

Others, adopting another mode of the same misstatement, say that Locke is an associationalist. The fact is that he recognizes the laws of association, but only as every true philosopher does. A theory of association is necessary to any complete system. Very properly he believed in mental suggestion. But to say that he made this power the basis of all our reasonings and convictions would be false. To make him account for belief and memory, judgment and deduction, by the union of associated conceptions, would misrepresent him greatly. He can not be classed among the associationalists.

Certain critics have adopted this theory because of Locke's strong fight against "innate ideas." But they infer too much from this hostility. The "innate idea" is a Cartesian principle advocated by Leibnitz. Locke in his first book confutes it thoroughly. He reasons: If any ideas are innate, then the expression of these ideas—for example, "Whatever is, is," or, "It is impossible the same thing should be and not be"—must be intelligible to all human beings of whatever age or condition. He shows that such principles cannot be understood by children, savages and idiots; therefore they cannot be innate. But while Locke contends against innate ideas, he does not deny intuitive perception, but, on the contrary, affirms that "some perceptions we do perceive intuitively."

In his opposition to innate ideas, Locke only seemed to oppose

immediate and individual intuitions. In fact those who say that Locke opposes intuition cannot be blamed much for their conclusion if they derive it from a study of his first book. A true knowledge of his doctrine concerning intuition must be sought by a comparison of this book with the others in which the immediate perception of necessary relations is taught with clearness. A child may and does have an intuitive perception of various necessary relations, and yet does not know the import of "Whatever is, is." In this light we must agree with Locke.

Some hold that Locke did not believe in the original intuition of necessary truths because he taught that all general ideas are the product of generalization. That conclusion, however, does not follow. Our author says, "Universals do not exist." "General and universal belong not to the real existence of things" ("Essay," Bk. III., Ch. 3), and "All things that exist are particulars" (Bk. III., Ch. 3). Hence he concludes that every actuality is an individuality. Berkeley and Hume assert that Locke here opposes intuitions. They fail to see that universal truth can be reached from certain individual intuitions which accompany our perceptions of simple fact.

Locke says further, "All our knowledge comes from experience." Again our two "apostles of unbelief" come forward and ask, "If this be true, where does intuition enter?" We reply, "Locke, in the use of this term, did not intend to contrast intuition and experience. On the contrary he meant to include under experience all presentational cognition, of which our first intuitions are clearly a species." He teaches this in the latter part of the "Essay"; and there can be no doubt of his meaning.

Locke plainly asserts that we have an intuitive knowledge, when he says, "We have an intuitive knowledge of our own existence." Further, he states, "Man knows by an intuitive certainty that bare nothing can no more produce any real being than it can be equal to two right angles." Here he mentions a clear case of intuitive knowledge. Evidently the intuition of cause and effect is recognized in his philosophy.

The doctrine of the immediate perception of necessary truth is entirely consistent with all of Locke's teaching; and especially with that regarding general abstract principles. He says:

"There are a sort of propositions, which under the name of maxims or axioms have passed for principles of science, and, because they are self-evident, are supposed innate." Then he denies that maxims or axioms, or any generalized truths, are "the principles and foundations of all our knowledge." In this he attacks the dogmatists in their stronghold; for their doctrine is that the mind immediately perceives general abstract principles. In opposition to them he maintains that "all the materials of reason and knowledge come from experience," *i.e.*, from the immediate perception of fact and of the relations of fact. "These two, namely, external material things as the objects of sensation, and the operations of our own minds as the objects of reflection, are the only 'originals' whence our ideas take their beginning." Here by sensation and reflection, as the only "originals," Locke meant what we, with our more analytic vocabulary, term sense-perception and consciousness.

Our own generation adds another kind of perception to these two, and names it "concomitant perception"; because though having a nature of its own, it takes place in connection with the two first-named perceptions. The terms of Locke only obscurely comprehend this last mode of perception; a philosopher of our own time has had the honor of developing and naming the doctrine of concomitant perception.

The term *idea* is used by Locke in the above quotation for "the immediate object of thinking." In this he followed Descartes, who used Plato's term *idea* to designate immediate objects of thought. The Scotch philosopher Reid notices this error, and asserts that we deal with the object itself, not with any substitute or go-between such as Locke and Descartes suggested by their "ideas." In Berkeley and Hume we can see how Locke's doctrine concerning ideas—or rather the doctrine suggested by his use of terms—was abnormally developed and how, thus developed, it led these two into an extreme. The latter went so far as to question the existence of both matter and mind; and his followers in France at once fell into agnosticism and scepticism.

To return now to the "experience" mentioned by Locke. We understand this to mean simply all forms of the immediate cogni-

tion of the fact, *i.e.*, presentational perception in general ; and there can be no doubt that a mode of intuition is here included. Aristotle seems to have had a prophetic view, as it were, of this conception of Locke; for with him αἴσθησις often includes every kind of the immediate perception of fact.

Those who understand Locke as making mere sensation, not immediate perception, the origin of our knowledge are woefully mistaken. Such are the sensationalists, and the closely connected materialists. Condillac, who asserts that our mental life is composed only of sensations and "transformed" sensations, claimed to be a disciple of Locke. So also did Hartley, the founder of associationalism. Nothing in the writings of Locke supports the views of these philosophers; much can be found in opposition to them.

Further, Locke teaches that rational knowledge, as opposed to probable judgment, is the absolute perception of the agreement or disagreement of ideas, that is, of the connection of subject and predicate. Locke says ("Essays," Bk. IV., Chap. 14): "The faculty which God has given to man to supply the want of clear and certain knowledge, where that cannot be had, is judgment, whereby the mind takes its ideas to agree or disagree without perceiving demonstrative evidence in the proofs. Thus the mind has two faculties conversant about truth and falsehood first, knowledge, whereby it perceives and is undoubtedly satisfied of the agreement or disagreement of ideas; secondly, judgment, which is the putting ideas together or separating them from one another in the mind, when their certain agreement or disagreement is not perceived, but presumed to be so." From this, even though we had no other proof, we could say that Locke was an intuitionalist. Of itself it is convincing.

Finally, let us quote one passage in which our author asserts that all demonstration arises from a series of intuitions (Bk. IV., Chap. IV., 1): "The mind perceives that white is not black, that a circle is not a triangle, that three are more than two, and equal to one and two. Such kind of truths the mind perceives at the first sight of the ideas together, by bare intuition, without the intervention of any other idea; and this kind of knowledge is the clearest and most certain that human frailty is capable of.

. . . Certainty depends so wholly on this intuition that in the next degree of knowledge, which I call demonstrative, this intuition is necessary in all the connections of the intermediate ideas, without which we cannot attain knowledge and certainty."

MYSTICAL BUDDHISM IN CONNEXION WITH THE YOGA PHILOSOPHY OF THE HINDUS.

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THE first idea implied by Buddhism is intellectual enlightenment. But Buddhism has its own theory of enlightenment—its own idea of true knowledge, which it calls Bodhi, not Veda. By true knowledge it means knowledge acquired by man through his own intellectual faculties and through his own inner consciousness, instincts, and intuitions, unaided by any external or supernatural revelation of any kind.

But it is important to observe that Buddhism, in the carrying out of its own theory of entire self-dependence in the search after truth, was compelled to be somewhat inconsistent with itself. It enjoined self-conquest, self-restraint, self-concentration and separation from the world for the attainment of perfect knowledge and for the accomplishment of its own *summum bonum*—the bliss of Nirvana—the bliss of deliverance from the fires of passion and the flames of concupiscence. Yet it encouraged association and combination for mutual help. It established a universal brotherhood of celibate monks, open to persons of all castes and ranks, to rich and poor, learned and unlearned alike—a community of men which might, in theory, be co-extensive with the whole world—all bound together by the common aim of self-conquest, all animated by the wish to aid each other in the battle with carnal desires, all penetrated by a desire to follow the example of the Buddha, and be guided by the doctrine or law which he promulgated.

* In this paper some of the diacritical marks, required for the accurate representation of Oriental words in the Roman character, have been omitted.

Cœnobitic monasticism in fact became an essential part of true Buddhism and a necessary instrument for its propagation.

In all this the Buddha showed himself to be eminently practical in his methods and profoundly wise in his generation. Evidently, too, he was wise in abstaining at first from all mystical teaching. Originally Buddhism set its face against all solitary asceticism and secret efforts to attain sublime heights of knowledge. It had no occult, no esoteric system of doctrine which it withheld from ordinary men.

Nor did true Buddhism at first concern itself with any form of philosophical or metaphysical teaching, which it did not consider helpful for the attainment of the only kind of true knowledge worth striving for—the knowledge of the origin of suffering and its remedy—the knowledge that suffering and pain arise from indulging lusts, and that life is inseparable from suffering, and is an evil to be got rid of by suppressing self and extinguishing desires.

In the *Maha-parinibbana-sutta* (Rhys Davids, 11–32) is recorded one of the Buddha's remarks shortly before his decease.

"What, O Ananda, does the Order desire of me? I have taught the law (desito dhammo) without making any distinction between esoteric and exoteric doctrine (anantaram abahiram karitva). In the matter of the law, the Tathagata (*i.e.*, the Buddha) has never had the closed fist of a teacher (acariya-mutthi)—that is, of a teacher who withholds some doctrines and communicates others."

Nevertheless, admitting, as we must, that early Buddhism had no mysteries reserved for a privileged circle, we must not shut our eyes to the fact that the great importance attached to abstract meditation in the Buddhist system could not fail in the end to encourage the growth of mystical ideas.

Furthermore, it is undeniable that such ideas were, in some countries, carried to the most extravagant extremes. Efforts to induce a trance-like or hypnotic condition, by abstracting the thoughts from all bodily influences, by recitation of mystical sentences and by superstitious devices for the acquisition of supernatural faculties, were placed above good works and all the duties of the moral code.

We might point, too, to the strange doctrine which arose in Nepal and Tibet—the doctrine of the Dhyani-Buddhas (or Buddhas of Meditation)—certain abstract essences existing in the formless worlds of thought, who were held to be ethereal and eternal representatives of the transitory earthly Buddhas.

Our present concern, however, is rather with the growth and development of mystical Buddhism in India itself, through its connexion with the system called Yoga and Yogacara.

The close relationship of Buddhism to that system is well known. The various practices included under the name Yoga did not owe their origin to Buddhism. They were prevalent in India before Gautama Buddha's time; and one of the most generally accepted facts in his biography is that, after abandoning his home and worldly associations, he resorted to certain Brahman ascetics who were practising Yoga.

What then was the object which these ascetics had in view?

The word Yoga literally means "union" (as derived from the Sanskrit root "yuj," to join), and the proper aim of every man who practised Yoga was the mystic union (or rather reunion) of his own spirit with the one eternal Soul or Spirit of the Universe, and the acquisition of divine knowledge through that union.

It may be taken for granted that this was the Buddha's first aim when he addressed himself to Yoga in the fifth century B.C., and even to this hour, earnest men in India resort to this system with the same object.

In the *Indian Magazine* for July, 1887 (as well as in my "Brahmanism and Hinduism") is a short biography of a quite recent religious reformer named Svami Dayananda Sarasvati, whose acquaintance I made at Bombay in 1876 and 1877, and who only died in 1883. The story of his life reads almost like a repetition of the life of Buddha, though his teaching aimed at restoring the supposed monotheistic doctrine of the Veda.

It is recorded that his father, desiring to initiate him into the mysteries of Saivism, took him to a shrine dedicated to the god Siva; but the sight of some mice stealing the consecrated offerings and of some rats playing on the heads of the idol led him to disbelieve in Siva-worship as a means of union with the Supreme

Being. Longing, however, for such union and for emancipation from the burden of repeated births, he resolved to renounce marriage and abandon the world. Accordingly, at the age of twenty-two, he clandestinely quitted his home, the darkness of evening covering his flight. Taking a secret path, he travelled thirty miles during the night. Next day he was pursued by his father, who tried to force him to return, but in vain. After travelling farther and farther from his native province, he took a vow to devote himself to the investigation of truth. Then he wandered for many years all over India, trying to gain knowledge from sages and philosophers, but without any satisfactory result, till finally he settled at Ahmedabad. There, having mastered the higher Yoga system, he became the leader of a new sect called the Arya-Samaj.

And here we may observe that the expression "higher Yoga" implies that another form of that system was introduced. In point of fact, the Yoga system grew, and became twofold—that is, it came in the end to have two objects.

The earlier was the higher Yoga. It aimed only at union with the Spirit of the Universe. The more developed system aimed at something more. It sought to acquire miraculous powers by bringing the body under control of the will, and by completely abstracting the soul from body and mind, and isolating it in its own essence. This condition is called Kaivalya.

In the fifth century B C., when Gautama Buddha began his career, the later and lower form of Yoga seems to have been little known. Practically, in those days earnest and devout men craved only for union with the Supreme Being, and absorption into his essence. Many methods of effecting such union and absorption were contrived. And these may be classed under two chief heads—bodily mortification (tapas) and abstract meditation (dhyana).

By either of these two chief means, the devotee was supposed to be able to get rid of all bodily fetters—to be able to bring his bodily organs into such subjection to the spiritual that he became unconscious of possessing any body at all. It was in this way that his spirit became fit for blending with the Supreme Spirit.

We learn from the "Lalita-vistara" that various forms of bodily torture, self-maceration, and austerity were common in Gautama's time.

Some devotees, we read, seated themselves in one spot and kept perpetual silence, with their legs bent under them. Some ate only once a day or once on alternate days, or at intervals of four, six, or fourteen days. Some slept in wet clothes or on ashes, gravel, stones, boards, thorny grass, or spikes, or with the face downwards. Some went naked, making no distinction between fit or unfit places. Some smeared themselves with ashes, cinders, dust, or clay. Some inhaled smoke and fire. Some gazed at the sun, or sat surrounded by five fires, or rested on one foot, or kept one arm perpetually uplifted, or moved about on their knees instead of on their feet, or baked themselves on hot stones, or entered water, or suspended themselves in the air.

Then, again, a method of fasting called very painful (atikricchra), described by Manu (xi., 213), was often practised. It consisted in eating only a single mouthful every day for nine days and then abstaining from all food for the three following days.

Another method, called the lunar fast (vi., 20, xi., 216), consisted in beginning with fifteen mouthfuls at full moon, and reducing the quantity by one mouthful till new moon, and then increasing it again in the same way till full moon.

Passages without number might be quoted from ancient literature to prove that similar practices were resorted to throughout India with the object of bringing the body into subjection to the spirit. And these practices have continued up to the present day.

A Muhammadan traveller, whose narrative is quoted by Mr. Mill ("British India," I., 355), once saw a man standing motionless with his face towards the sun.

The same traveller, having occasion to revisit the same spot sixteen years afterwards, found the very same man in the very same attitude. He had gazed on the sun's disk till all sense of external vision was extinguished.

A Yogi was seen not very long ago (Mill's "India," I., 353) seated between four fires on a quadrangular stage. He stood on one leg gazing at the sun, while these fires were lighted at the

four corners. Then placing himself upright on his head, with his feet elevated in the air, he remained for three hours in that position. He then seated himself cross-legged, and continued bearing the raging heat of the sun above his head and the fires which surrounded him till the end of the day, occasionally adding combustibles with his own hands to increase the flames.

I, myself, in the course of my travels, encountered Yogis who had kept their arms uplifted for years, or had wandered about from one place of pilgrimage to another under a perpetual vow of silence, or had no place to lie upon but a bed of spikes.

As to fasting, the idea that attenuation of the body by abstinence from food facilitates union of the human soul with the divine, or at any rate promotes a keener insight into spiritual things, is doubtless as common in Europe as in Asia; but the most austere observer of Lent in European countries would be hopelessly outdone by devotees whose extraordinary powers of abstinence may be witnessed in every part of India.

If we now turn to the second great method of attaining mystic union with the Divine Essence, namely, by profound abstract thought, we may observe that it, too, was everywhere prevalent in Buddha's time.

Indeed, one of the names given by Indian philosophers to the One Universal Spirit is Cit, "Thought." By that name, of course, is meant pure abstract thought, or the faculty of thought separated from every concrete object. Hence, in its highest state the eternal infinite Spirit, by its very nature, thinks of nothing. It is the simple thought faculty, wholly unconnected with any object, about which it thinks. In point of fact, the moment it begins to exercise this faculty, it necessarily abandons for a time its condition of absolute oneness, abstraction and isolation, to associate itself with something inferior, which is not itself.

It follows, therefore, that intense concentration of the mind on the One Universal Spirit amounts to fixing the thought on a mere abstract Essence, which reciprocates no thought in return, and is not conscious of being thought about by its worshipper.

In harmony with this theory, we find that the definition of Yoga, in the second aphorism of the Yoga-sutra, is, "the suppression (nirodha) of the functions or modifications (vritti) of the

thinking principle (citta)." So that, in reality, the union of the human mind with the infinite principle of thought amounts to such complete mental absorption, that thought itself becomes lost in pure thought.

In the "Sakuntala" (vii., 175) there is a description of an ascetic engaged in this form of Yoga, whose condition of fixed meditation and immovable impassiveness had lasted so long that ants had thrown up a mound as high as his waist, and birds had built their nests in the long clotted tresses of his tangled hair.

Not very dissimilar phenomena may be witnessed even in the present day. I, myself, not many years ago, saw at Allahabad a devotee who had maintained a sitting, contemplative posture with his feet folded under his body, in one place near the fort for twenty years.

During the Mutiny cannon thundered over his head, and bullets hissed all around him, but nothing apparently disturbed his attitude of profound meditation.

It is clear, then, from all we have stated, that, supposing Gautama to have made up his mind to renounce the world and devote himself to a religious life, his adoption of a course of Yoga was a most ordinary proceeding.

In the first instance, as we have seen, he tested the value of painful self-mortification by a long sexennial fast. Then, after discovering the uselessness of mere bodily austerities, he took food naturally, and adopting the second method, applied himself to profound abstract meditation.

A large number of the images of Buddha represent him sitting on a raised seat, with his legs folded under his body, and his eyes half-closed, in this condition of abstraction (samadhi)—sometimes called Yoga-nidra; that is, a trance-like state, compared to profound sleep, or a kind of hypnotism.

According to the account given in the "Maha-vagga" (i., 1), he seated himself in this way under four trees in succession, remaining absorbed in thought for seven days and nights under each tree, till he was, so to speak, re-born as Buddha "the Enlightened." Till then he had no right to that title.

And those four successive seats probably symbolized the four

recognized stages of meditation (dhyana) rising one above the other, till thought itself was converted into non-thought.

We know, too, that the Buddha went through still higher progressive stages of meditation at the moment of his death or final decease (Pari-nirvana), thus described in the "Mahaparinibbana sutta" (vi., 11):

"Then the Venerable One entered into the first stage of meditation (pathamajjhanam); and rising out of the first stage, he passed into the second; and rising out of the second, he passed into the third; and rising out of the third, he passed into the fourth; and rising out of the fourth stage, he attained the conception of the infinity of space (akasanancayatanam); and rising out of the conception of the infinity of space, he attained the conception of the infinity of intelligence (or second Arupa-brahmaloka). And rising out of the idea of the infinity of intelligence, he attained the conception of absolute nonentity (akincannayatanam); and rising out of the idea of nonentity, he entered the region where there is neither consciousness nor unconsciousness; and rising out of that region, he entered the state in which all sensation and all perception of ideas had wholly ceased."

This strange passage shows that even four progressive stages of abstraction did not satisfy the requirements of later Buddhism in regard to the intense sublimation of the thinking faculty needed for the complete effacement of all sense of individuality. Higher and higher altitudes had to be reached, insomuch that the fourth stage of abstract meditation is sometimes divided and sub-divided into what are called eight vimokhas and eight samapattis—all of them forms and stages of ecstatic meditation.

A general name, however, for all the higher trance-like states is Samadhi, and by the practice of Samadhi the six transcendent faculties (Abhinna) might ultimately be obtained, viz., the inner ear, or power of hearing words and sounds however distant (clair-audience, as it might be called), the inner eye or power of seeing all that happens in every part of the world (clair-voyance), knowledge of the thoughts of others, recollection of former existences, the knowledge of the mode of destroying the corrupting influences of passion, and, finally, the supernatural powers called Iddhi, to be subsequently explained.

But to return to the Buddha's first course of meditation at the time when he first attained Buddhahood. This happened during one particular night, which was followed by the birthday of Buddhism.

And what was the first grand outcome of that first profound mental abstraction? One legend relates that in the first watch of the night all his previous existences flashed across his mind; in the second he understood all present states of being; in the third he traced out the chain of causes and effects, and at the dawn of day he knew all things.

According to another legend, there was an actual outburst of the divine light before hidden within him.

We read in the "Lalita-vistara" (chap. i.) that at the supreme moment of his intellectual illumination brilliant flames of light issued from the crown of his head, through the interstices of his cropped hair. These rays are sometimes represented in his images, emerging from his skull in a form resembling the five fingers of an extended hand.

Mark, however, that it is never stated that Gautama ever attained to the highest result of the true Yoga of Indian philosophy —union with the Supreme Spirit. On the contrary, his self-enlightenment led to entire disbelief in the separate existence of any eternal, infinite Spirit at all—any spirit, in fact, with which a spirit existing in his own body could blend, or into which it could be absorbed.

If the Buddha was not a materialist, in the sense of believing in the eternal existence of material atoms, neither could he in any sense be called a "spiritualist," or "spiritist."

With him Creation did not proceed from an Omnipotent Spirit evolving phenomena out of itself by the exercise of almighty will, nor from an eternal self-existing, self-evolving germ of any kind. As to the existence of any spiritual substance in the Universe which was not matter and was imperceptible by the senses, it could not be proved.

Nor did he believe in the eternal existence of an invisible, intangible, human self or Ego, commonly called Soul, as distinct from a material body. In this he differed widely from the Yoga. The only eternity of early Buddhism was in an eternity

of "becoming," not of "being"—an eternity of universes, all succeeding each other, and all lapsing into nothingness.

In short, the Buddha's enlightenment consisted, first, in the discovery of the origin and remedy of suffering, and, next, in the knowledge of the existence of an eternal Force—a force generated by what in Sanskrit is called Karman, "Act." Who, or what, started the first act the Buddha never pretended to be able to explain. He confessed himself in regard to this point a downright Agnostic.

All he affirmed was that every man was created by the force of his own acts in former bodies, combined with a force generated by intense attachment to existence (upadana). The Buddha himself was so created, and had been created and re-created through countless bodily forms; but he had no spirit or soul existing separately between the intervals of each creation. By his protracted meditation he attained to no higher knowledge than this, and although he himself rose to loftier heights of knowledge than any other man of his day, he never aspired to other than the extraordinary faculties which were within the reach of any human being capable of rising to the same sublime abstraction of mind.

He was even careful to lay down a precept that the acquisition of transcendent human faculties was restricted to the perfected saints called Arhats; and so important did he consider it to guard such faculties from being claimed by mere impostors, that one of the four prohibitions communicated to all monks on first admission to his monastic Order was that they were not to pretend to such powers.

Nor is there any proof that even Arhats in Gautama's time were allowed to claim the power of working physical miracles.

By degrees, no doubt, powers of this kind were ascribed to them as well as to the Buddha. Even in the Vinaya, one of the oldest portions of the "Tripitaka," we find it stated that Gautama Buddha gained adherents by performing three thousand five hundred supernatural wonders (in Pali patihariya). These were thought to be evidences of his mission as a great teacher and saviour of mankind; but the part of the narrative recording these, although very ancient, is probably a legendary addition of

later date. It is interesting, however, to trace in other portions of the first literature, the development of the doctrine that Buddhahood meant first transcendent knowledge, and then supernatural faculties, and finally miraculous powers.

In the "Akkanheyya Sutta" (said to be written in the fourth century B.C.) occurs this remarkable passage, translated by Professor Rhys Davids (p. 214):—

"If a Monk should desire through the destruction of the corrupting influences (asavas), by himself, and even in this very world, to know and realize and attain to Arhatship, to emancipation of heart, and emancipation of mind, let him devote himself to that quietude of heart which springs from within, let him not drive back the ecstasy of contemplation, let him look through things, let him be much alone.

"If a Monk should desire to hear with clear and heavenly ear, surpassing that of men, sounds both human and celestial, whether far or near; if he should desire to comprehend by his own heart the hearts of other beings and of other men; if he should desire to call to mind his various temporary states in the past, such as one, two, three, four, five, ten, twenty, a hundred, a thousand, a hundred thousand births, or his births in many an age and æon of destruction and renovation, let him devote himself to that quietude which springs from within."

Then, in the "Maha-parinibbana-sutta" (i., 33) occurs the following:

"At that time the Blessed One—as instantaneously as a strong man would stretch forth his arm, or draw it back again when he had stretched it forth—vanished from this side of the river, and stood on the further bank with the company of the brethren."

And, again, the following:

"I call to mind, Ananda, how when I used to enter into an assembly of many hundred nobles, before I had seated myself there, or talked to them, or started a conversation with them, I used to become in color like unto their color, and in voice like unto their voice. Then, with religious discourse, I used to instruct, incite, and quicken them, and fill them with gladness. But they knew me not when I spoke, and would say, 'Who may

this be who thus speaks? a man or a god?' Then, having instructed, incited, quickened and gladdened them with religious discourse, I would vanish away. But they knew me not even when I vanished away; and would say, 'Who may this be who has thus vanished away? a man, or a god?'" ("Maha-parinibbana-sutta," iii., 22.)

Such passages in the early literature afford an interesting exemplification of the growth of supernatural and mystical ideas, and account for the ultimate association of the Northern Buddhistic system, with Saivism, demonology, magic, and various spiritual phenomena connected with what has been called "Esoteric Buddhism."

These ideas, however, originated in India, and we may now proceed to trace their development in the later *Yoga* or "aphorisms of the Yoga philosophy," composed by Patanjali, to which I have already referred.

In that work eight requisites of Yoga are enumerated (ii., 29); namely 1, abstaining from five evil acts (yama); 2, performing five positive duties (niyama); 3, settling the limbs in certain postures (asana); 4, regulating and suppressing the breath (pranayama); 5, withdrawing the senses from their objects (pratyahara); 6, fixing the thinking faculty (dharana); 7, internal self-contemplation (dhyana); 8, trance-like self-concentration (samadhi).

These eight are indispensable requisites for the gaining of Patanjali's *summum bonum*—the complete abstraction or isolation (kaivalya) of the soul in its own essence and for the acquirement of supernatural faculties.

Taking now these eight requisites of Yoga in order, we may observe, with regard to the first, that the five evil acts to be avoided correspond to the five commandments in Buddhism, viz., "kill not," "steal not," "commit no impurity," "lie not." The fifth alone, "abstain from all worldly enjoyments," is different, the Buddhist fifth prohibition being "drink no strong drink."

With regard to the second requisite, the five positive duties are—self-purification, both external and internal (both called sauca); the practice of contentment (santosha); bodily mortifi-

cation (tapas); muttering of prayers, or repetition of mystical syllables (svadhyaya, or japa), and contemplation of the Supreme Being.

The various processes of bodily mortification and austerities have been already described.

As to the muttering of prayers, the repetition of mystic syllables such as Om (a symbol for the Triad of Gods), or of any favorite deity's name, is held among Hindus to be highly efficacious. In a similar manner among Northern Buddhists the six-syllabled sentence : "Om mani padme hum"—"Reverence to the jewel in the lotus. Amen"—is used as a charm against the sixfold course of transmigration. The Jewel may mean Avalokitesvara, the patron saint of Tibet, fabled to have sprung from a lotus, or it may contain a *double-entendre*—an occult allusion to the Sankhya Purusha and Prakriti, or to the Linga and Yoni of Saivism, as symbolizing the generative force of Nature. No other prayer-formula in the world is repeated so often.

Other mystical syllables (such as sam, yam, ram, lam) are supposed to contain some occult virtue.

The third requisite—posture—would appear to us a somewhat trivial aid to the union of the human spirit with the divine ; but with Hindus it is an important auxiliary, fraught with great benefit to the Yogi.

The alleged reason is that certain sitting postures (asana) and cramping of the lower limbs are peculiarly efficacious in producing bodily quietude and preventing restlessness. Some of the postures have curious names, for example :—Padmasana, "the lotus posture" ; virasana, "the heroic posture" ; sinhasana, "the lion posture" ; kurmasana, "the tortoise posture" ; kukkutasana, "the cock posture" ; dhanur-asana, "bow posture" ; mayurasana, "peacock posture." In the first the right foot is placed on the left thigh, and the left on the right thigh.

In short, the idea is that compression of the lower limbs, in such a way as to prevent the possibility of the slightest movement, is most important as a preparation for complete abstraction of soul.

Then, as another aid, particular twistings (called mudra) of the upper limbs—of the arms, hands, and fingers—are enjoined.

In Europe violent movements of the limbs are practised by devotees with the view of uniting the human spirit with the Divine. Those who have seen the whirling and "howling" dervishes of Cairo can testify to this. The fainting fits which result from their violent exertions, inspirations, expirations, and utterances of the name of God are believed to be ecstatic states in which such union is effected.

The fourth requisite—regulation and suppression of the breath—is perhaps the one of all the eight which it is most difficult for Europeans to understand or appreciate; yet with Hindus it is all-important (being called Hatha-vidya). Nor are the ideas connected with it wholly unknown in Europe.

According to Swedenborg,* thought commences and corresponds with respiration:

"When a man thinks quickly his breath vibrates with rapid alternations; when the tempest of anger shakes his mind his breath is tumultuous; when his soul is deep and tranquil, so is his respiration." And he adds: "It is strange that this correspondence between the states of the brain or mind and the lungs has not been admitted in science."

The Hindu belief certainly is that deep inspirations of breath assist in concentrating and abstracting the thoughts and preventing external impressions. But, more than this, five sorts of air are supposed to permeate the human body and play an important part in its vitality. The Hatha-dipika says: "As long as the air remains in the body, so long life remains. Death is the exit of the breath. Hence the air should be retained in the body."

In regulating the breath, the air must first be drawn up through one nostril (the other being closed with the finger), retained in the lungs, and then expelled through the other nostril. This exercise must be practised alternately with the right and left nostril. Next, the breath must be drawn forcibly up through both nostrils, and the air imprisoned for as long a time as possible in the lungs. Thence it must be forced by an effort of will towards the internal organs of the body, or made to mount to the centre of the brain.

* Quoted in Colonel Olcott's *Yoga Philosophy*, p. 282.

The Hindus, however, do not identify the breath with the soul. They believe that a crevice or suture called the Brahmarandhram at the top of the skull serves as an outlet for the escape of the soul at death. A Hindu Yogi's skull is sometimes split at death by striking it with a sacred shell. The idea is to facilitate the exit of the soul. It is said that in Tibet the hair is torn out of the top of the head, with the same object.

In the case of a wicked man the soul is supposed to escape through one of the lower openings of the body.

The imprisonment of the breath in the body by taking in more air than is necessary for respiration, is the most important of the breath exercises. It is said that Hindu ascetics, by constant practice, are able by this means to sustain life under water, or to be buried alive for long periods of time. Such feats of endurance would be wholly impracticable in the case of Europeans. It seems, however, open to question, whether or not it may not be possible for human beings of particular constitutions to practise a kind of hibernation like that of animals, by some method of suspending temporarily the organic functions. A certain Colonel Townsend is said to have succeeded in doing so.

A well-known instance of suspended animation occurred in the Punjab in 1837. A certain Yogi was there, by his own request, buried alive in a vault for forty days in the presence of Runjit Singh and Sir Claude Wade ; his eyes, ears, and every orifice of his body having been first stopped with plugs of wax. Dr. McGregor, the then residency surgeon, also watched the case. Every precaution was taken to prevent deception. English officials saw the man buried, as well as exhumed, and a perpetual guard over the vault was kept night and day by order of Runjit Singh himself. At the end of forty days the disinterment took place. The body was dried up like a stick, and the tongue, which had been turned back into the throat, had become like a piece of horn. Those who exhumed him followed his previously given directions for the restoration of animation, and the Yogi told them he had only been conscious of a kind of ecstatic bliss in the society of other Yogis and saints, and was quite ready to be buried over again.

What amount of fraud, if any, there may be in these feats it is

impossible to say. The phenomena may possibly be accounted for by the fact that Indian Yogis have studied the habits of hibernating animals for ages.

I may add that it is commonly believed throughout India that a man whose body is sublimated by intense abstract meditation never dies, in the sense of undergoing corruption and dissolution. When his supposed death occurs he is held to be in a state of trance, which may last for centuries, and his body is, therefore, not burnt, but buried—generally in a sitting posture —and his tomb is called a samadh.

With regard to the fifth requisite—the act of withdrawing the senses from their object, as, for example, the eye from visible forms—this is well compared to the act of a tortoise withdrawing its limbs under its shell.

The sixth requisite—fixing the principle of thought—comprises the act of directing the thinking faculty (citta) towards various parts of the body, for example, towards the heart, or towards the crown of the head, or concentrating the will-force on the region between the two eyebrows, or even fixing the eyes intently on the tip of the nose. (Compare "Bhagavadgita," vi., 13.)

The seventh and eighth requisites—viz., internal self-contemplation and intense self-concentration—are held (when conjoined with the sixth) to be most important as leading to the acquisition of certain supernatural powers, of which the following are most commonly enumerated :—(1) Animan, "the faculty of reducing the body to the size of an atom"; (2) Mahiman, or Gariman, "increasing the size or weight at will"; (3) Laghiman, "making the body light at will"; (4) Prapti, "reaching or touching any object or spot, however apparently distant"; (5) Prakamya, "unlimited exercise of will"; (6) Isitva, "gaining absolute power over one's self and others"; (7) Vasita, "bringing the elements into subjection"; (8) Kamavasayita, "the power of suppressing all desires."

A Yogi who has acquired these powers can rise aloft to the skies, fly through space, pierce the mysteries of planets and stars, cause storms and earthquakes, understand the language of animals, ascertain what occurs in any part of the world, or of the

universe, recollect the events of his own previous lives, prolong his present life, see into the past and future, discern the thoughts of others, assume any form he likes, disappear, reappear, and even enter into another man's body and make it his own.

Such were some of the extravagant ideas which grew with the growth of the Yoga system, and all these exist in the later developments of Buddhism. The Buddha himself is fabled by his followers to have ascended to the Trayas-trinsa heaven of Indra, walked on water, stepped from one mountain to another, and left impressions of his feet on the solid rock; although in the well-known "Dhamma-pada" it is twice declared (254, 255), "There is no path through the air."

Of course it was only natural that, with the development of Buddhism and its association with Saivism, the Buddha himself should have become a centre for the growth and accumulation of supernatural and mystical ideas. It is in this way that the later doctrine makes every Buddha have a threefold existence or possess three bodies, much in the same way as in Hinduism three bodies are assigned to every being.

The first of the Buddha's bodies is the Dharma-kaya "body of the Law," supposed to be a kind of ethereal essence of a highly sublimated nature and co-extensive with space. This essence was believed to be eternal, and after the Buddha's death, was represented by the law or doctrine (Dharma) he taught. Its Brahmanical analogue is probably Brahman, "the Universal Spirit," which, when associated with Illusion (or the Karana-sarira), may assume a highly ethereal subtle body, called Linga-sarira.

The second body is the Sambhoga-kaya, "body of conscious bliss," which is of a less ethereal and more material nature than the last. Its Brahmanical analogue appears to be the intermediate celestial body belonging to departed spirits, called Bhoga-deha, which is of an ethereal character, though it is composed of sufficiently gross (sthula) material particles to be capable of experiencing happiness in heaven.

The third body is the Nirmana-kaya, "body of visible shapes and transformations," that is to say, those visible concrete material forms in which every Buddha who exists as an invisible

and eternal essence, is manifested on the earth or elsewhere for the propagation of the true doctrine. The Brahmanical analogue of this third body appears to be the earthly gross body, called Sthula-sarira.

There is a well-known legend which relates how the great Brahman sage Sankaracarya entranced his gross body, and then, having forced out his soul along with his subtle body, entered the dead body of a recently deceased king, which he occupied for several weeks.

In connection with these mystical ideas, I may here allude to the belief that certain modern Eastern sages, skilled in occult science, have the power of throwing their gross bodies into a state of mesmeric trance, and then by a determined effort of will projecting or forcing out the ethereal body through the pores of the skin, and making this phantasmal form visible in distant places.*

We learn from Mr. Sinnett that a community of Buddhist "Brothers," called Mahatmas, are now living in secluded spots in the deserts of Tibet, who have emancipated their interior selves from physical bondage by meditation, and are believed to possess "astral" or ethereal bodies (distinct from their gross bodies), with which they are able to rise in the air, or move through space, by the mere exercise of will.

I am not aware whether the Psychical Research Society has extended its researches to the deserts of Tibet, where these phenomena are said to take place.

In curious agreement with these notions, are the beliefs of various uncivilized races. Dr. Tylor, in his "Primitive Culture" (i., 440), relates how the North American Indians and others believe that their souls quit their bodies during sleep, and go about hunting, dancing, visiting, etc.

Old legends relate how Simon Magus made statues walk; how he flew in the air; changed his shape; assumed two faces; made the vessels in a house seem to move of themselves (Yule's "Marco Polo," i., 306). Friar Ricold relates that "a man from India was said to fly. The truth was that he did walk close to

* Colonel Olcott and Mr. Sinnett mention this faculty as characteristic of Asiatic occultism.

the surface of the ground without touching it" (Yule's "Marco Polo," i., 307).

As to the phenomena of modern spiritualism, these are declared by Mr. Sinnett to be quite distinct from those of Asiatic occultism. He maintains that modern spiritualism requires the intervention of "mediums," who neither control nor understand the manifestations of which they are the passive instruments; whereas the phenomena of occultism are the "achievements of a conscious living operator," produced by a simple effort of his own will. The important point, he adds, "which occultism brings out is, that the soul of man, while something enormously subtler and more ethereal and more lasting than the body, is itself a material body. . . . The ether that transmits light is held to be material by any one who holds it to exist at all; but there is a gulf of difference between it and the thinnest of the gases." In another place he advances an opinion that the spirit is distinct from the soul. It is the soul of the soul.

And again: "The body is the prison of the soul for ordinary mortals. We can see merely what comes before its windows; we can take cognizance only of what is brought within its bars. But the adept has found the key of his prison, and can emerge from it at pleasure. It is no longer a prison for him—merely a dwelling. In other words, the adept can project his soul out of his body to any place he pleases with the rapidity of thought." *

It is worth noting that many believers in Asiatic occultism hold that a hitherto unsuspected force exists in nature called Odic force (is this to be connected with Psychic force ?), and that it is by this that the levitation of entranced persons is effected. Some are said to have the power of lightening their bodies by swallowing large draughts of air. The President of the Theosophical Society, Colonel Olcott, alleges that he himself, in common with many other observers, has seen a person raised in the air by a mere effort of will.

Surely these phenomena may be mere feats of conjuring. In the *Asiatic Monthly Journal* for March, 1829, an account is given of a Brahman who poised himself *apparently* in the air,

* "The Occult World," by A. P. Sinnett, Vice-President of the Theosophical Society, pp. 12, 15, 20.

about four feet from the ground, for forty minutes, in the presence of the Governor of Madras. Another juggler sat on three sticks put together to form a tripod. These were removed, one by one, and the man remained sitting in the air. On the other hand, it is contended, that "since we have attained, in the last half-century, the theory of evolution, the antiquity of man, the far greater antiquity of the world itself, the correlation of physical forces, the conservation of energy, spectrum analysis, photography, the locomotive engine, electric telegraph, spectroscope, electric light, and the telephone, who shall dare to fix a limit to the capacity of man?" * Few will be disposed to deny altogether the truth of such a contention, however much they may dissent from Colonel Olcott's theosophical and neo-Buddhist views.

There may be, of course, latent faculties in humanity which are at present quite unsuspected, and yet are capable of development in the future.

I may also refer to the statement of Sir James Paget, in his recent address on "Scientific Study," that many things now held to be inconceivable and past man's imagination are profoundly and assuredly true, and that it will be in the power of science to prove them to be so.†

Clearly mystical Buddhism is far too big a subject to be compressed within the limits of a single paper.

I will merely, in conclusion, express my doubts whether Asiatic occultism, as connected with the Yoga philosophy, and as believed in by Colonel Olcott, Mr. Sinnett, and many others, will ever bear the searching light of European scientific investigation.

Nevertheless, it seems to me to be a subject which ought not to be brushed aside by our scientists as unworthy of consideration. It furnishes, in my opinion, a highly interesting topic of inquiry, especially in its bearing on the so-called "Spiritualism," "neo-Buddhism," and "Theosophy" of the present day. The practices connected with mesmerism, animal magnetism, clairvoyance, thought-reading, etc., have their counterparts in the Yoga system prevalent in India more than 2,000 years ago.

* Colonel Olcott's "Lectures on Theosophy and Archaic Religions," p. 109.

† Report in the *Times* newspaper.

"The thing that hath been, it is that which shall be; and that which is done is that which shall be done: and there is no new thing under the sun."

CURRENT THOUGHT.

[In this department we shall insert articles not read before the Institute.]

INSPIRATION, by President George F. Magoun, Iowa: One of the things said against the inspiration of Scripture is, that the idea of its infallibility is self-contradictory, "since it denies the power of reason to attain and test truth, while asserting and depending upon the same reason to vindicate the historicity of the book it regards as infallible and authoritative." (*Andover Review* for April, 1891.)

A large amount of loose statement, confusion of thought, and error for a small space!

I. This places historical credibility and truth as to spiritual realities on the same plane. If "reason" can judge of and recognize the one, it must be able to discover the other! Thinkers have always distinguished between the two, and between the mental processes employed upon them. A man might know that a machine had been put into his warehouse without a particle of the great inventive faculty which originated the machine! No, says the writer quoted above, this is self-contradictory; it denies the power of the man to discover the principles involved in the machine while it depends upon this power in him to "vindicate the historicity" of its arrival in his warehouse. And this thing is called thinking.

II. It implies that our minds must be able to discover spiritual truths for themselves in order to know that they are beyond our power to so discover them. For unless they are beyond it there is no revelation about it. We do not need one for any truth which "reason" has power to "attain" of itself. And if it is confined to these, what a blunder to call it "revelation." Could aught be more self-contradictory than the loose claim for "reason" made above? It is like the demand of the same sort of writers that miracles shall be so capable of explanation by natural "laws" that they shall cease to be miraculous at all.

III. It ignores the perfectly well-known, every-day fact, that a cause may be competent to a certain effect, while incompetent to others, even all others. Our faculties for discovering truth about the world and ourselves do not prove as equally discerning as to truth about God, even leaving out of the account the paralyzing effect of sin. An angel can learn of himself what a man cannot. It is a question of amount of mental power. God, of Himself, can know, without discovery or study, all about Himself. But man is not God. It requires a creative mind to understand a creative mind. Creatures can comprehend creatures only and but in part. Among them there are vast differences. Ascribe to the bee, the elephant, such intelligence as may seem to you to account for what they do—they do not still know man as man knows them. "Canst thou by searching find out God? Canst thou find out the Almighty to perfection?" "Such knowledge is too wonderful for me; it is high, I cannot attain unto it."

It will occur to any one that on the reasoning above against the inerrancy of the Bible, an infallible God can never infallibly teach fallible man at all. For if man could know that the teaching is historic, he would know enough to discover errors in it, though assured by God that there are none, on whatsoever grounds and by whatsoever authority. God must either be fallible or man infallible in attaining and testing spiritual truths, over and above historical facts, or they could never come together. As Dr. Henry B. Smith used to teach, reason can find the proofs of revelation and then submit to it, as to its superior.

MEMORABILIA.

LECKY, in speaking of Christianity, affirms it "has been the most powerful lever that has ever been applied to the affairs of men. Christianity (not infidelity) transformed the character of the multitude, vivified the cool heart by a new enthusiasm, and redeemed, regenerated, and emancipated the most depraved of mankind." "An enduring principle of regeneration, perfect love knew no arts; it created a boundless self-abnega-

tion that transforms the character and is the parent of every virtue." "Infusing its beneficial influence into every sphere of thought and action." "Introduced a new era of human progress with new aspirations, habits of thought and conditions of vitality; created a purer faith and became the promise of an eternal development." "It has probably done more to promote piety, to create a pure and merciful idea than any other influence that has ever acted on the world."

"The pre-eminent characteristic of modern (as well as ancient) Christianity is the boundless philanthropy it displays." "Christianity was designed to be a religion of philanthropy, and love was represented to us as the distinctive test, or characteristic, of its members." "The highest conception that has been formed of the sanctity of human life, the protection of infancy, the elevation and final emancipation of the slave classes; the suppression of barbarous games, the creation of a vast and multifarious organization of charity, and the education of the imagination by the Christian type, constitutes together a movement of philanthropy which has never been paralleled or approached in the Pagan world. The effect of this movement in promoting happiness has been very great; its effect in determining character has probably been still greater." Thus proving that, even sceptic as Lecky undoubtedly is, historical facts forced him to the conclusions quoted, while in his study of the particular action of Christianity, he affirms "that for the first time under the influence of Christianity, a great moral movement passed through the servile (slave) classes." "While Christianity thus broke down the contempt with which the master regarded his slaves, and planted among the latter a principle of moral regeneration, which expanded into other spheres, its (Christianity's) action in procuring the freedom of slaves was unceasing." See Lecky's library editions "Rationalism" and "Morals." His ultimate conclusion is that "Whatever mistakes may have been made, the entire movement (Christianity) I have traced, displays an anxiety not only for the life, but also for the moral well-being of the castaways of society, such as the most human nations of antiquity had never reached. This minute and scrupulous care for human life and human virtue in the humblest forms—in the

slave, the gladiator, the savage, or the infant—was indeed wholly foreign to the genius of Paganism. . . . It is the distinguishing and transcendent characteristic of every society into which the Spirit of Christianity has passed."

LORD MACAULAY'S conclusion from history was, "that Christianity had struck off the chains of slaves; which has mitigated the horrors of war; which has raised women from servants and playthings into companions and friends." Our author adds, "To speak against Christianity is to commit high treason against humanity and civilization."

LORD NAPIER and ETTRICK: "In the matter of education the co-operation of the religious societies is, of course, inestimable to the Government, and to the people. Missionary agency is, in my judgment, the only agency that can at present bring the benefits of teaching home to the humblest orders of the population."

G. H. LEWES: "The convents formed the cradle of modern philosophy." ("Introduction," p. 7.)

HUMBOLDT ("Cosmos," Bohn's edition, vol. ii., pp. 391–2) affirms that Christianity "expanded the views of men in their communion with nature." Page 392 we read—"It was the tendency of the Christian mind to prove from the order of the universe and the beauty of nature the greatness and goodness of the Creator; this tendency gave rise to a taste for natural description."

EDITOR'S NOTES.

"THE ETHICS OF SUICIDE" was Prof. Felix Adler's topic before the School of Ethics at Plymouth, Mass., last summer. After marshalling the arguments against self-slaughter and declaring that "Thou shalt not suicide" should be taught equally with "Thou shalt not kill," the professor said that he did not wish to be understood as asserting that the taking of one's own life is under no circumstances permissible. When honor, in the moral sense, was at stake, there was no other exit open. In certain other cases also suicide might be permissible. "Why should not the chronic invalid be unbound and permitted to de-

part in peace? Let an official body, designated by the State, consisting, say, of three judges of the Supreme Court and of three eminent physicians be summoned in every case to the bedside of the sufferer, and if the council be unanimously of the opinion that there is no possible hope of recovery, the patient should be allowed to receive the cup of relief at the hands of his attending physician." And this transcendently foolish and wicked doctrine was taught at a School of Ethics! We must think Mr. Adler was jesting with his audience or perhaps ridiculing the School. It is a subject for ridicule to profess to talk of Ethics which has no duty because it has no authoritatively published standard of right and wrong, and has no such standard because there is no right and wrong, and there is no right and wrong because there is no God. "Permissible"? That is strictly funny. If there be no one who has a right to command or forbid there is no one to "permit." We have waited for some time to see if Prof. Adler would deny this disparaging statement; but we cannot learn that he has. We would not do him injustice, and will gladly publish any correction.

MOVEMENTS for the propagation of theosophy have made timely a paper on Buddhism, by perhaps the highest authority on the subject, Sir Monier Monier Williams, and we reproduce it in this number from the Victoria Institute's Transactions.

MONTHLY MEETINGS.

October, 1891.—At the meeting held October 6, in Hamilton Hall, Columbia College, the President being in the chair, the devotional exercises were conducted by Rev. Wm. T. McElveen, of New York City. After the adoption of the minutes of the June meeting, the following names of new members were read by the Secretary:

Life Members.—Ernest Groesbeck, New York; S. D. McConnell, A.M., D.D., Philadelphia, Penn.; W. C. Wilbor, D.D., Buffalo, N. Y.; W. W. McLane, Ph.D., D.D., New Haven, Conn.; Mrs. M. D. Stambach, Anchorage, Ky.

Transferred to Life Membership from Annual.—Hon. W. H.

Arnoux, New York; Prof. M. J. Cramer, M.D., East Orange, N. J.

New Members.—Rt. Hon. William Ewart Gladstone, Hawarden, England; Miss Frances E. Willard, A.M., L.S., Pres. W. C. T. U., Evanston, Ill.; John Jamison Moore, D.D., Bishop A. M. E. Sion's Church, Salisbury, N. C.; Wesley J. Gaines, D.D., Bishop A. M. E. Church, Atlanta, Ga.; Henry M. Turner, D.D., Bishop A. M. E. Church, Atlanta, Ga.; Nicholas Castle, D.D., Bishop United Brethren in Christ Church, Elkhart, Ind.; Charles Henry Payne, D.D., LL.D., Sec. Methodist Episcopal Board of Education, New York; Rev. Antonio Arrighi, B.D., New York; Rev. William H. Cunningham, Chapel Hill, N. C., Rev. Robert H. Fleming, A.B., Lynchburg, Va.; Rev. E. M. Ferguson, Phillipsburgh, N. J.; Rev. Charles J. Godsman, A.B., A.M., Malad City, Idaho; D. H. Green, D.D., of St. Bartholomew's Church, New York; DeWitt C. Huntington, D.D., Bradford, Penn.; Rev. Robert Pollok Kerr, A.B., D.D., Richmond, Va.; Rev. W. T. McElveen, New York; Rev. Thomas George Wall, A.M., New York; Edmund Jacob Wolf, D.D., Prof. Church History and N. T. Exegesis, Gettysburg, Penn.; Charles Henry Corey, A.M., D.D., Pres. Richmond Theol. Sem., Richmond, Va.; Rev. Mervin J. Eckels, A.M., Pres. Seaside Assembly, Avon-by-the-Sea, Bradford, Penn.; Rev. Jose Maria Lopez-Guillen, A.M., Gen. Missionary for the Spaniards, New York; Horatio Q. Butterfield, Pres. Olivet College, Olivet, Mich.; Leonard W. Crawford, Prof. Biblical Literature, Randolph, N. C.; Allen Marquand, Prof. of Art at Princeton College, Princeton; Theodore F. Seward, Prof. Music College for Training of Teachers, New York, East Orange, N. J.; John M. Odell, Pres. Concord National Bank, Concord, N. C.; Oswald Ottendorfer, Editor *New York Staats Zeitung*, New York; S. Wilson Murray, Associate Editor *The Standard*, Milton, Conn.; Hamilton Fish, LL.D., ex-Gov. N. Y., ex-Sec. of State, New York; Williams M. Robbins, A.M., ex-Member of Congress, ex-Major Confederate Army, Statesville, N. C.; Mrs. P. A. Deyo, Yonkers, N. Y.; Mrs. G. A. Jeremiah, New York; Mrs. Mary A. (Wm. J.) Sloan, Lakewood, Ocean Co., N. J.; Nathan Smith Davis, A.M., M.D., LL.D., Chicago, Ill.; George LaMonte,

A.B., Bound Brook, N. J.; Samuel Dickie, M. S., Albion, Mich.; Israel C. Pierson, A.M., Ph.D., Plainfield, N. J.; Spencer Trask, A.M., New York; William M. Burr, Philadelphia, Penn.; Olin Hill, Providence, R. I.; William F. Holmes, Lake City, Minn.; Clement W. Shoemaker, Bridgeton, N. J.; William E. McIlvaine, Hendersonville, N. C.

In the absence of Rev. Thomas E. Fleming, Ph.D., of Davenport, Iowa, his paper was read by Mr. Marion J. Verdery, of New York, one of the trustees of the Institute.

The discussion was conducted by Dr. Deems, Mr. Wm. A. Crane and Mr. S. N. Wilder.

The thanks of the Institute were presented to the author and to the reader of the paper, and a copy was requested for publication in CHRISTIAN THOUGHT.

ABOUT BOOKS.

[In this department we shall make mention of recent publications, especially those in the line of our studies. There will not be space for extended review. The name of the book, its publisher, and its price when known, together with a brief statement of its drift will probably meet the demands of our readers. Any book mentioned will be sent post-paid, on receipt of price, by WILBUR B. KETCHAM, 2 Cooper Union, New York.]

"THE MODALIST, OR THE LAWS OF RATIONAL CONVICTION," a Text-Book in Formal or General Logic, by Edward John Hamilton, D.D., Albert Barnes Professor of Intellectual Philosophy in Hamilton College, N. Y., is published by Ginn & Co., Boston. It is called "The Modalist" because it restores modal propositions and modal syllogisms to the place of importance which they occupied in the Logic of Aristotle. Professor Hamilton thinks that universal and particular categorical propositions cannot be understood, as principles of reasoning and as employed in "mediate inference," unless the one be regarded as expressing a necessary and the other a contingent sequence. Therefore also he explains the pure syllogism by the modal. Moreover there are modes of reasoning which can be formulated only in modal syllogisms. Logic is the science, not of thought simply as such, but of thought as the instrument of rational conviction, and therefore of thought in its relation to metaphys-

ics, which is the science of the nature and laws of things. Some radical modifications of logical doctrine have resulted from the thorough-going application of this principle, and these, it is believed, have added greatly to the intelligibility of the science. We hope to have a review of this book in a future number of CHRISTIAN THOUGHT.

We wish to commend to our readers, even those who do not know a letter of Greek, a volume entitled "A CRITICAL GREEK AND ENGLISH CONCORDANCE OF THE NEW TESTAMENT" (Boston: H. L. Hastings, 47 Cornhill). The first edition of this book was published in 1870. Each edition has been an improvement on its predecessor. It was used by all the New Testament revisers in making the Westminster revision of King James's version of the New Testament, and its helpfulness has been heartily acknowledged by them and other eminent scholars. The present edition, which is the seventh, was prepared by Charles F. Hudson, under the direction of H. L. Hastings, and was revised by the late Ezra Abbot, D.D., LL.D. This is not a new book, and we are not calling to the book the attention of scholars; generally they know its value. But private students of the New Testament and Sunday-school teachers would find this book of great value to them. Without any knowledge of Greek whatever they would be able to inform themselves of the several English translations given to the same word and be greatly helped otherwise. Nor could they fail of picking up some Greek. How this would be done is explained in the introduction, which we have not space to quote. The history of the preparation of the book interested us greatly. While writing this notice a letter comes to us from a good woman in the far West saying that she had taken almost no recreation in the last two years, and consequently was low in health and very nervous, because she had read and heeded a commentator who gave to Titus ii., 5, the interpretation that women were to be "keepers at home," and therefore were never to go out except "for piety, mercy, and necessity." If she had had this Concordance she would have learned that the word translated "keeping at home" simply means "housekeepers," and inculcates housewifely duties, elevating the home-economics in the scale of womanly virtues,

making home a field of delightful culture, and not a wearing prison-house.

A good, sensible, solid and useful book by Dr. Robert B. Fairbairn, warden of St. Stephen's College, N. Y., entitled "OF THE DOCTRINE OF MORALITY IN ITS RELATION TO THE GRACE OF REDEMPTION" (Thomas Whittaker, N. Y., publisher). It is a timely book and is a tonic. It seems to us timely because it is very apparent that in some literary circles the opinion is now prevalent which Celsus in his day set forth, that Christianity is simply a system of morality, and is not as old as some other systems, and that that is all there is in the Gospel, and so that Christianity is, after all, of no very great importance. Moreover, it is very apparent that even in so-called Christian circles of to-day there is a tendency to regard a life of ritual as a religious life, and to separate it from the life of virtue, which consists in conscientious devotion to the discharge of duties enjoined by moral obligation. These two states of mind are much in the way of the reception of true Christianity. Dr. Fairbairn's vigorous book aims to correct these errors and to show that the Gospel brings us something more than a system of morality, much of which it has in common with other systems, and that the Gospel reveals to us a means of supernatural grace, without which, in the present moral state of man's constitution, he cannot obey the demands of morality. In addition to this the book inculcates the very necessary truth that whatever life of devotion a man may be leading, there can be no holiness where either the moral life is neglected by the grace of God obtained in the offices of religion. The author aims to promote a revival of morality, and his book is earnest, robust and manly. It were to be wished that all our young Christian preachers would study it.

A book to be in the library of every scholar is entitled "ECONOMICS OF PROHIBITION," by James C. Fernald. It is published by Funk & Wagnalls. It is valuable as being encyclopedic. What anyone wishes to know of the facts and figures of the drink-trade, he will very likely find in this book. The best part of it seems to be the latter part, and to the general reader we should point the chapters severally headed, "The Laboring Man," "The Best Customers," "The Tradesman," "The Farmers," "The Home," "The Gates of Paradise." Every time we examine this book its value seems greater.

We are indebted to President Angell for a bound volume of "OUR DUMB ANIMALS," published by those two most excellent societies, "The American Humane Educational Society," and "The Massachusetts Society for the Prevention of Cruelty to Dumb Animals." In all works of that kind, the editor of this journal has profound interest, not so much for the sake of our fellow animals of the brute creation as for the sake of human animals. Few men calculate the elevating effect upon themselves of the perpetual kindness towards animals who have sensitiveness and who cannot protect themselves. It is a means of grace to have a favorite horse or pet dog. It is exceedingly necessary to train children in kindness to the speechless animals around them. The writer will never forget the fine manner in which his mother, now dead fifty-seven years, used to repeat these lines from Cowper :

> I would not enter on my list of friends,
> Though graced with polished manners and fine sense,
> Yet wanting sensibility, the man
> Who needlessly sets foot upon a worm.

Very great debtors are Christian readers to Dr. Francis W. Upham. He has never brought anything but oil to the lamps of the sanctuary. His books on "The Star of the Wise Men," "The Star of the Lord," and "Thoughts on the Holy Gospels," have secured him a high and permanent place amongst contributors to the religious literature of Christendom. Dr. Upham is not only learned but is also thoughtful, and the best part of his books is that which he has produced without the aid of other authors. His latest book (Hunt & Eaton) has the title, "St. Matthew's Witness to the Words and Works of Our Lord." Valuable as is the portraiture of St. Matthew, of still greater importance is the exposition of Christian doctrine given in this Gospel, in which more than in the others our Lord is revealed as the lawgiver of social life. We commend this book very heartily to all who love to think.

We have received from the "United Society of the Christian Endeavor" the "NARRATIVE OF THE TENTH ANNUAL CONFERENCE OF THE YOUNG PEOPLE'S SOCIETY OF CHRISTIAN ENDEAVOR." We were present at that convention through three of the four memorable days simply as a delegate having no appointment. While no book can represent to a reader that meeting, which we believe surpassed in numbers and spiritual power and moral influence any gathering ever had on the planet, this pamphlet narrative ought to be read by every Christian in the land. We do not know the price, but we recommend our readers to order it, from 50 Bromfield Street, at a venture.

Christian Thought.

THE INFLUENCE OF ASSOCIATION.

[Delivered before the American Institute of Christian Philosophy, August 10th, 1891.]

By Rev. W. C. Wilbor, Ph.D., Buffalo, N. Y.

TRADITIONS of antiquity contain many accounts of the marvellous deeds of magicians and enchanters, supernatural beings who could exercise dire spells upon their unconscious and unfortunate victims, and by unearthly incantations and deadly compounds of herbs and curses bring evils upon mankind.

Literature has photographed these creations of fancy in many forms, among which are Shakespeare's witches, Bulwer-Lytton's Saga of Vesuvius, and that favorite and familiar representative of many British writers, Merlin, the Welsh and Scottish prophet and enchanter. Tales of giants and lilliputians, of sprites and fairies, of Bluebeard, of the Arabian Nights and other works of similar character have a perpetual interest for old and young alike, for the mind ever delights to dwell on stories of marvel and mystery, of the incredible and the impossible.

But greater magic and deeper mystery lie in the processes of the human mind itself, and the weird and unnatural beings I have mentioned live only in its imagination.

In studying the laws which govern our thoughts, we find greater fascination than in the products of those thoughts.

Fabled Aladdin, by rubbing a wonderful lamp, could instantly create palaces and castles, kings and courtiers, silver and gold in fabulous sums, and jewels of untold value and exquisite beauty. But the mind of man, from the storehouse of knowledge

and the limitless range of thought, borne on the fleet wings of imagination, can speak into being far more magnificent palaces, decorated with richer and more elaborate art, and people them with more wondrous beings than any magician of old.

Byron has well expressed this idea in a single line :

"The power of thought, the magic of the mind."

Out of that image of God's intellect, the human mind, with its spacious treasury, the memory, man can bring forth things new and old for his own delectation, and for the pleasure and instruction of others.

The mind has the power of action and re-action. It can create and re-create ; cognize and re-cognize ; produce and re-produce ; consider and re-consider. How limitless its range of vision ! Light and darkness are both alike to it. How vast its field of discovery ! Lock it within doors of steel and walls of adamant and there it will be fancy free. Combine it in mysterious union with human flesh, from which in no abstraction can it be wholly absent, and how it will soar away through space, till, like a bird, it folds its pinions upon planets and stars human eyes have never seen. Without weariness it travels the trackless and invisible paths of God's universe ! It staggers not at eternity, nor at its own immortality. It annihilates time and space. It dwells in the far distant past or in the equally distant future at will. It can flash through six million years as quickly as it can through a second. In the mind dwell first all the sublime conceptions that ever find expression in engineering, architecture, art or literature. What a wonderful tribute to its Creator is the mind itself. Shattered and imbecile indeed must that intellect be that can say, "There is no God."

Sir William Hamilton divides the mind into six parts as follows : "(1) The presentive faculty, or the power of recognition ; (2) the conservative faculty, or memory ; (3) the reproductive faculty, or the power of recalling sleeping impressions ; (4) the representative faculty, or imagination ; (5) the elaborative faculty, or the power of comparison, and (6) the regulative faculty, or the instinctive notions of the intellect." In the combination of three of these basal elements of the mind we find established a great law of the intellect.

Memory, reproduction and recognition, acting together, involve the recollection of facts, experiences or incidents suggested by something now appearing before the mind that was originally identified with them. This we call

THE LAW OF ASSOCIATION OF IDEAS.

We must distinguish, first of all, between the various psychological terms which are more or less related to this subject.* One of the constituents of the law of association of ideas is,

Suggestion, for it is when we are conscious and reflecting on one thing that some other thing, related to it, but not antecedently thought of, recurs to mind.

In *Reminiscence* we arrange the images of our past knowledge in such a manner that they may help us to recall other impressions not then in consciousness. Reminiscence is the act of recovering.

Remembrance is the recurring of an idea to the mind without the appearance of the like object to the external sense.

Recollection is the act of combining recovered remembrances ; it is the effort of the mind to search with diligence after ideas that have before been known, that when found they may be brought again into view.

Contemplation is the act by which the mind long holds objects of thought under attentive consideration.

In *Imagination* we arrange and combine the elements of our knowledge produced by reminiscence into new forms in harmony with our sense of beauty or utility.

Revery is a loose or irregular train of thought occurring in musing or meditation ; it is almost involuntary mental action, and is quite as likely to lead us into new realms never before trodden, guided by imagination, as into reflection upon the past.

Identification is intimately related to the law under consideration, for it is by frequent repetitions that identification is established ; upon it all progress in human knowledge depends. It is by this means that the inductive method is applied to all

* The following definitions are chiefly taken from Fleming's "Vocabulary of Philosophy" and from Dr. M. B. Anderson's "Lectures on Mental Science."

classificatory sciences, and by which their principles become known and established.

A *Train of Thought* is the constant succession of thoughts that is passing through our minds while we are awake. It is dual in character; the first part relates to the influence of association in regulating merely the succession of our thoughts, while the second part relates to the influence of association on the intellectual powers and on the moral character by the more indissoluble and spontaneous combinations which it leads us to form chiefly in infancy and youth, but to some extent in maturity. It is unguided, without design and inconstant.

Having considered these relative conditions of our subject, we are now ready for a fuller examination of the Law of Association of Ideas. This is a phrase of great importance in the philosophy of the human mind, as expressing the most pervading fact at the foundation of our intelligence. We live in a world of ideas where we are occupied with sights, sounds and touches, remembered, anticipated, or imagined, as well as those caused by physical contact with real things. It is in this world that the process termed "association" has its sphere. Hobbes and Read give us a good definition of it: "Thoughts which have at any time, recent or remote, stood to each other in the relation of co-existent or immediate consecution do, when severally reproduced, tend to reproduce each other." In other words, "The parts of any total thought, when subsequently called into consciousness, are apt to suggest immediately the parts to which they were proximately related, and mediately, the whole of which they were constituent."

Locke says: "Ideas that in themselves are not all of kin come to be so united in some men's minds that it is very hard to separate them; they always keep company, and the one no sooner at any time comes into the understanding but its associate appears with it."

Almost everything we see suggests something else. A familiar house reminds us of the people who live in or have lived in it, and the relations we formerly sustained to them.

Association is the mind's index. Very much of the knowledge we accumulate would be lost beyond recall, if this index did not

enable us to recover it. Rogers expresses it in the following lines :

> " Lulled in the countless chambers of the brain,
> Our thoughts are linked by many a hidden chain ;
> Awake but one, and lo ! what myriads rise !
> Each stamps its image as the other flies ;
> Each, as the various avenues of sense,
> Delight or sorrow to the soul dispense,
> Brightens or fades : yet all with magic art
> Control the latent fibers of the heart."

The law of association of ideas is the earliest of the mental attributes ; it precedes the early law of imitation. A child learns to associate before it learns to imitate. We have often noticed that a young infant cries when it sees its mother or nurse put on her wraps to go out, because the little one has observed that these preparations are signs of immediate separation and deprivation. A very small toddler, on hearing an unseen door-bell ring in the rear of the house, will at once go to the front door to see the person announced by the door-bell. The child simply obeys this law of association of ideas. A little later, when it begins to imitate speech and sounds, it will be guided in that imitation by association. Take the following illustration : A little two-year-old watched, with great interest, the process of scalding, plucking, dressing and baking a fowl that had been a familiar object in the barnyard. Pointing to it on the dinner table, ready for carving, he called it, " Cookle-doodle-do ! " and having eaten of it, for weeks after he referred to all baked meats by the same expression. The same child, on seeing a hen frightened off a nest that the eggs might be gathered, called the eggs, when boiled, " shoo ! " He called a horse " gup," in evident abbreviation of the expression used in driving, " get up." Associating a cow with the sound she made, he most naturally called her " moo."

Akin to these early expressions of the infant mind is the application of the law under consideration to animals. I do not propose here to discuss the question of mind in animals, but I am frank to declare a firm belief in the theory that they do possess much more than a blind instinct. The instincts of animals are at least properties of mind, for they involve experience,

memory and reason, of all of which animals are capable, to a greater or less degree, and with great individual differences in the same species. Many anecdotes of the sagacity of animals illustrate and confirm this truth. A horse will almost invariably shy at the same place in the road where he was once frightened, even though he may not pass the same place again for years. Many dogs are capable of being trained to understand much of the conversation they hear, and to obey many commands couched in different forms of expression. A dog belonging to a friend in Le Roy, N. Y., bearing the distinguished name of William Shakespeare, will bark every morning at the door of the domestic, will go to the front window to see if the horse is at the door, and, returning to his owner, will bark if the horse is there and remain silent if it is not there. He will sit in a chair, jumping over the arm or back as requested. He expresses approbation when asked if he likes ministers, and great indignation when asked his opinion of book agents. He will also sing when requested to do so, and when "good-night" is said to him he goes to bed. These are only a few of the manifestations of his intelligence.

A remarkable illustration of this law of association in animals was witnessed just after the war of Rebellion on a grassy island in the Niagara River, near Buffalo, N. Y., and was seen by a large number of boys who were going to the river to swim. A hundred or more horses, brought back from the army, had been turned out on the island to graze. A bugler, evidently knowing the training and habits of the army horses, sounded on a bugle the call to ranks. Instantly, from all parts of the island, the horses ran together to the centre of the island, and formed in columns side by side. Though mustered out of service, former associations were evidently not forgotten.

Our total knowledge of any complete object is a gradual growth due to the action of several senses at the same time or at different times, and also upon the different parts or elements of which the object is made up. Each sense is conversant with its appropriate form of matter, but the same external object may be, and often is, adjusted to more than one sense; it is often the case that two or three senses are fixed at the same time upon

the same external object, as when we both see and hear a piano played. Again, we subject an object to the scrutiny of several senses successively ; the knowledge thus acquired through the various organs, though connected at the time and place, are really distinct from each other. The rapidity with which this process of collection takes place is so great and the result embodied in the mind is so compact and complete that we cannot separate in thought what is actually presented by a given sense at a given time from our past knowledges. The acquisitions of the other senses are recalled in and associated with the immediate objects of actual perception.

The statement just made illustrates a fact that we do not often fully realize, namely, the importance and value of the number and variety of senses with which man and other animals are endowed. We have as proof of our knowledge and remembrance of past objects the testimony of the several senses as of two or more witnesses in confirmation of the truth. For example, we sometimes hear a man converse fluently and in fairly correct language who can neither read nor write. He is confined to the single sense of hearing as a means of associating words in language. Another can both converse and read, but cannot write ; he has the testimony of two senses. But a third person can talk and read and write ; his power of association is threefold greater than that of the one first described. Thus the association of ideas may be simple or compound, according to the number of senses employed in acquiring them.

Locke says : "Simple ideas, the materials of all our knowledge, are suggested and furnished to the mind only by the two ways of sensation and reflection."

The process of reflection takes place mainly, if not solely, in the domain of memory ; by it we recall processes of thought which we have gone through, and hold them in the memory for examination. Thus the mind may act upon itself independently of the senses, as in the recollection of philosophical or mathematical demonstrations or calculations, and can roam through psychological speculations and arrive at logical conclusions, and establish them firmly in mind, so that memory will accurately recall them, without ever committing them to any of the senses.

This is the domain of reflection. But arbitrary signs and visible or audible expressions are always necessary for demonstrating them to others.

INVOLUNTARY ASSOCIATION.

Having treated our subject in this general way, let us make an application of the principle under discussion to what may be termed the involuntary action of the mind, by which, on the appearance of certain conditions, we are compelled to recall knowledge that has been in the mind, suggested by some incident, however trivial, that reminds us of that past experience. Will Carleton describes this characteristic of the mind in his "Festival of Anecdote":

> "What mind-smith who can trace the subtle links
> That join a man's ideas when he thinks?
> Given the thought by which he's pleased or vexed,
> Who can predict what one will strike him next?
> Given a memory, who can tell us all
> The other memories that its voice may call?
> Given a fancy, who betimes can read
> What other unlike fancies it may breed?
> Given a fact, who surely can foreknow
> What distant relatives may come and go?
> Beneath our thoughts, thoughts hidden thickly teem,
> Each mind is but a stream above a stream."

Anything that one once really knows is never forgotten. Knowledge may be sealed up and laid away out of sight and out of mind. It may never return, because never called for, like some of the books in our libraries that we never open, but it still exists in the memory, and when the proper conditions are fulfilled it will be restored. Thus memory is like a telescope—when the lenses are brought to the right focus we plainly see things at a distance that were unseen before. They were there all the time, and only needed the right instrument to reveal them. The phonograph also represents appropriately this attribute of the mind; it receives and holds impressions as on a sensitive cylinder, and when replaced in the machine will restore the sound as first made. Let me place upon the cylinder of your minds this tender and sweet reminiscence of the past, written by

the Rev. Dr. K. D. Nettleton, and see if it does not sing an old song in your ears :

" My home was on the mountain height,
Above a river's gentle flow ;
Where summer days were always bright,
But winter bleak with cold and snow.

" And, in my dream, I oft return
To that old home now far away,
Where, 'midst the scenes of life's bright morn
I passed full many a happy day.

" That dear old home I'll ne'er forget—
'Twas more than all the world to me.
Those dear old friends, I see them yet,
Sitting just where they used to be.

" I see them, but 'tis memory's eye
That looks upon the loved ones there;
For, as the years went passing by,
They moved away to homes more fair.

" Blest memory, that to me can bring
The gathered scenes of three-score years,
And make again the voices ring
That one alone in childhood hears."

The recurrence of the past impression depends upon the connection in which the impression was first made, and this furnishes the link for retrieving it. It is to memory that we are indebted for this power ; memory is the great mental storehouse of knowledge. There are two accessory ideas usually included in the definition of memory, namely, the power of *retaining* as well as *recalling* previous impressions, and an accompanying consciousness that the impression recalled relates to the past.

Memory is not second to any other capacity of the mind ; it brings up all the past. We are indebted to it for reproducing and sweetening departed scenes and pleasures ; it enters into nearly all our mental activity. Destroy memory, and everything in life that is worth preserving goes out. We are dependent upon it for the very signs of language with which we handle our simplest ideas. Memory can do what no other one but God can do,—it can give us back the past, with all its precious experiences ; it can give us back our childhood ; it can bring back the old home and its inhabitants long since disappeared; the old

schoolhouse, with our playmates and teachers. It is this that makes Samuel Woodworth's song of sentiment a universal favorite :

" How dear to this heart are the scenes of my childhood,
When fond recollection presents them to view !
The orchard, the meadow, the deep tangled wild wood,
And every loved spot which my infancy knew.

* * * * *

" And now, far removed from that loved situation,
The tear of regret will instinctively swell,
As fancy reverts to my father's plantation,
And sighs for the bucket which hung in the well."

" How wonderful," says Mr. Beecher, " is what we call association! I hang some thought upon an object, and say: ' Whenever I come hither, ring for me as a bell of joy ; ' and upon another I fasten an experience, saying to it : ' Toll to me of sadness ; ' and to another : ' Speak to me always of hope ; ' and, thereafter, each thing, true to its nature, whether it be tree, or place, or rock, or house, or that which is therein, never forgets its lesson. Yea, and when we forget, they make us remember, singing to us the notes which we had taught them."

The contagion of storytelling well illustrates this power of the mind. One man in a group relates an incident, and lo ! provoked by his narrative, in the mind of perhaps each one present, a similar incident occurs, and each alike is eager to relate it. There are no such things as vagaries of memory. Long-forgotten incidents, experiences, or mental conditions do not suddenly recur to us without any assignable reason or cause, though people sometimes think and say they do. There is always a cause for every effect. The chain of memory is made of links welded together, and every act or fact needs only the links of connection running through the mind to carry it back to the time and place where memory can identify it. Cowper, in "The Task," beautifully expresses this thought :

" How sweet the music of those village bells,
Falling at intervals upon the ear
In cadence sweet, now dying all away ;
Now pealing loud again, and louder still,
Clear and sonorous, as the gale comes on !

With easy force it opens all the cells
Where memory slept. Wherever I have heard
A kindred melody the scene recurs,
And with it all its pleasures and its pains."

A good illustration of what Cowper describes is found in the following incident:

Two gentlemen were sitting in a room in a hotel, engaged in conversation, when one of them suddenly burst into tears. His companion, in surprise, asked the cause of his grief. He replied: "Listen, do you hear that music?" And from a distance came the faint sound of a familiar air played on the piano. "That composition," said he, "is a piece my daughter, who has just died, used to play for me in her childhood, and the music is a tender and sacred voice out of the past, bringing so vividly to mind the joys that may never return, that I could not restrain my grief at the sound."

Take another incident in illustration of the strength of this law:

After a lapse of twenty-five years, in which a boyhood exploit seemed to be totally forgotten, it was recalled very vividly by a conversation with a child who lived where the incident occurred. Speaking with the boy of his home recalled the familiar surroundings of the house and the creek flowing near it. That recalled the building of a raft with a boy friend, and that brought to mind two little girls who came down to the creek and asked for and received a ride on the raft. The father of the girls, seeing them on the raft, angrily called them ashore, and in fierce anger plunged them again and again into the water, till his strength and wrath were exhausted together. Even the name of the brutal father was recalled in connection with the incident, though he had apparently been forgotten for many years.

Take still another illustration, amusing, but true. An ignorant laborer, living in a quiet country village, was one day bitten by a monkey that sprang upon him unobserved. Having never seen such an animal before, and because its hairy body, long tail and diabolical countenance answered perfectly to his conception of Satan, he shook the beast off with terrific energy, and ran down the street, shouting, "The devil had me, and I can show

you the marks of his teeth." So powerful is the law of association of ideas.

Sometimes the commonest trifles will make such lasting impressions upon the mind that they will be called up by every repetition of the act which first caused them. The head of a large firm took a slip of paper from his young cashier's drawer on which was written a simple number, and sternly asked: "Is that dollars or cents?" And then added with emphasis, "Young man, never forget your decimal point." Though the incident occurred many years ago, the young man has never forgotten, but thinks of the point every time he writes a figure. It is related of James Whitcomb Riley that when he was busily engaged in thought he would rapidly pace the floor, never taking more than three paces at a turn. A friend asked him one day, "Riley, what was the length of your cell when you were in prison?" He answered, "Three paces."

This law of association is inevitable and inexorable, as illustrated by arbitrary acts of memory, in such examples as the multiplication table. When we say, "two and two make," and pause, the mind cannot help thinking of four as the product. The same is true in repeating the alphabet, the Lord's Prayer, and other familiar passages of Scripture and well-known hymns. In many instances the sound of a tune long associated with a familiar hymn will always call to mind the words, as in "Home Sweet Home," "Rock of Ages," and the "Missionary Hymn." We make use of this law in learning foreign languages, vocabularies, and synonyms. It is this power that enables the composer to think out a composition, and to so associate the parts together in consecutive order that afterward, in public discourse or in committing the same to writing, he can reproduce the whole with accuracy.

Whittier says: "Grant but memory to us, and we can lose nothing by death."

Ruskin says: "We cannot remember without architecture, though we may live without her and worship without her. How cold is all history, how lifeless all imagery, compared to that which the living nation writes and the uncorruptible marble bears!" Mr. Ruskin is right, for every monument and memorial

tablet are reminders to all who see them of the lives and deeds of those whom they commemorate. The sculptured remains of remote antiquity, such as the pyramids, the obelisks and the sphinx of the desert, compel the world's onmoving generations to ask again the divinely designed question of the descendants of Israel, "What mean ye by these stones?" Likewise the printed bricks and clay cylinders of ancient Nineveh and Babylon, the hieroglyphics of Egypt, the alphabets and cuneiform inscriptions of past ages, are the suggestive symbols of association that link the present with the past.

Upon the influence of association depends the use of illustration in public and private instruction. People can easily remember a story or an object lesson; and, fastened upon these, the greatest truths will abide in mind and heart. The Great Teacher made the largest use of illustrations. He welded them to His sublime principles, so that the common objects that surround men might ever remind them of His lessons. And thus the sower, the tares, the pearl, the mustard seed, the leaven, and the lily are ever telling the world the wonderful story of the Kingdom of Heaven among men.

The parables are the images by which the intellect and spirit see invisible objects, and that which it is impossible to see with the eye the parable reveals to the mind.

This law, or power, or influence—whatever we may call it—that we have considered as relating to the government of thought, is also the foundation of our great social, civil and religious institutions. It is association that first establishes all the common customs of society, which, once established, become unwritten laws, which are, of all laws, most difficult to ignore or rescind, namely, the laws of usage, fashion and habit. It is association that forms the basis of business life, and makes possible the systematic transactions of the smaller and larger combinations of capital, till they grow into the gigantic corporations, monopolies and trusts that stretch across a continent and dictate terms to the financial world. This principle expands till it appears in all forms of government—in city councils, in state legislatures, in congresses of confederated empires, and in the parliaments of the world. It is seen in the treaties and conven-

tions of the great powers which settle the questions of the world's policy and civil status. This law also makes organized religious life possible, and brings people together in societies, churches, and sects, for the promulgation of creeds and doctrines, and for mutual aid and effective work in spiritual life, and in the great benevolent activities of the Christian world. It touches, by its subtle influence, the more prescribed circles of society, and brings men together for the common objects of friendship and pleasure, and thus constitutes the bond that holds in shape the world of society.

UTILITY OF THIS LAW.

The law of association finds its chief utility in mental and moral discipline. If the mind can be filled with noble thoughts, with inspiring truths, with lofty ideals in life and religion; if the models placed before the young are always the best; if the great lessons indelibly fixed in thought shall ever suggest the truest and purest reflections, the life so developed will bring the highest good to the race.

In the education of the young it is not enough to think only of intellectual advantages, of the best qualified teachers and the best methods alone. We must measure and weigh and understand, as far as possible, the invisible and unconscious moral influences, as well as those which are systematically designed; for these unintended and unbidden forces are the mightiest of all educational influences. They touch young lives on many sides, and mould most effectually the character which is the life.

In nothing is the influence of association more powerfully applied than in man's moral character. The law of association builds the intellectual nature, step by step, from the earliest combination of ideas, as expressed by letters into words of one syllable, up through all the grades of learning to the greatest comprehension and expression of profoundest metaphysical truth. The same law, then, must build the moral nature of man, from the earliest impressions of good, up through all the stages of spiritual growth, to the knowledge of the Son of God, unto a perfect man—unto the measure of the stature of the fulness of Christ. Or from the first vicious influences of evil down through all the stages of spiritual declension, until, becoming vain in

imagination, with foolish heart darkened, and not liking to retain God in knowledge, he is given over of God to a reprobate mind, and while knowing the judgment of God, that they that commit such things are worthy of death, not only does the same, but has pleasure in them that do them. These influences, subtle and invisible, of evil and good, by the contact of mind with mind, and of life with life, affect the results of our lives both here and hereafter.

As educators, we must give greater care and attention to this subject than it has heretofore received. It is to the moral application of this law that I urge your most serious attention. Professor Drummond says: "Moral man is acted upon and changed continuously by the influences, secret and open, of his surroundings, by the tone of his society, by the company he keeps, by his occupations, by the books he reads, by nature—by all, in fact, that constitutes the habitual atmosphere of his thought."

It is a great and important truth that evil communications corrupt good manners. How much a child's happiness depends upon his associations—upon the influences that combine to make up his surroundings! Being a creature of imitation, he does what he sees others do. Imitation follows close upon association, and both are as strong as instincts. He imitates the acts, words, gestures and attitudes of those who are with him. The slang and profanity of the street are breathed into his mind as easily as the vital air is breathed into his lungs; he is a photographic sensitive plate, receiving for future development every impression.

Henry Frederic Amiel says: "An evil example is a spiritual poison; it is the proclamation of a sacrilegious faith of an impure God. Sin would be only an evil for him who commits it were it not a crime toward the weak brethren whom it corrupts. Therefore it has been said, 'It were better for a man not to have been born than to offend one of these little ones.' We must watch with unceasing vigilance the springs of our example and influence."

"So subtle and so persuasive," says Punshon, "is this law of association that it is influential even when we are hardly conscious of its existence. The chance word from the lips of a

friend falling upon some nascent desire, like a spark upon tinder ; the vision of some grave or wise one, held up to the glance of fancy so often that it has become the ideal of the heart's aspiring ; the music of some old word greeting the ear with a familiar melody, have fixed the tone of a spirit and have fashioned the direction of a life. The world is just one unbroken chain of these actions and reactions. We are bound by them, we are compassed by them, and we can no more escape from them than we can fling ourselves beyond the influence of the law of gravitation, or refuse to be trammelled by the all-embracing air."

How tremendous, how awful in the light of God's truth is this inevitable law of association ! It stretches afar, beyond the limits of space and time. It surpasses in persistent vital energy and quickening touch the subtle influences of electricity, of heat, of light, or any other material power. A ray of light from a far distant sun touches the retina of the eye with cheer and blessing. A throb of heat from the intense energy of earth's great illuminant kisses a violet, and it unfolds in fragrant beauty. A spark of electricity flashes under the ocean, and is translated into a message of assurance and peace. But moral influences are greater than all of these powers combined. Hear once again a familiar, but touching story: Two gamblers are sitting at a table in Yokohama. They have long been engaged with the game. One of the men leans back in his chair, and thoughtlessly hums a tune. His comrade listens, and memory adjusts the music to these words :

"One sweetly solemn thought
Comes to me o'er and o'er,
I am nearer my home to-day
Than I've ever been before."

His eyes fill with tears, his voice trembles with emotion as he asks : "Where did you learn that ?" The other replies : "I learned it from my mother when I was a boy in America." The first speaker brushes the tears from his eyes as he says : "I had a Christian mother, too. This life we are leading is wrong. Let us abandon it, and seek and serve our mothers' God." Silently they leave the gambling den, and go out upon the street changed men. What mighty power has wrought this magical change ?

It is this subtle, invisible, powerful thing we call the influence of association. "Cords that were broken vibrate once more," joined by a mother's saintly life and faithful prayers.

It is related of Macaulay that he wept on finding unexpectedly the letter of a sister who had been dead more than twenty years. How much stronger than the tender affection thus displayed must be the influence of a godly mother upon the lives of her children, even though she has long slumbered in the grave.

Influence never dies. We all sympathize with the sentiment of the poet expressed in the words spoken in defence of the old tree :

> "My mother kissed me here ;
> My father pressed my hand –
> Forgive this foolish tear,
> But let the old tree stand."

That other sentiment is akin to the one just quoted :

> "'Tis bound by a thousand ties to my heart ;
> Not a tie will break, not a link will start.
> Would you learn the spell?—a mother sat there,
> And a sacred thing is that old arm chair."

At the close of day I watch the evening shadows as they change the color of the sky into ever-deepening blue, till the soft ray of light from a distant star reaches my eye. It sets in motion in my mind a wondrous train of thoughts. I am carried away through the unmeasured spaces of the great universe, and see the solar systems as they hang upon the unseen cords of gravitation, held by the great central power of creation. I see the marvellous achievements of the telescope, by which the invisible is revealed ; and of the spectroscope, by whose aid the chemistry of far-off planets is made known to man.

Thought wanders again along the eccentric paths of the meteors, and awakens recollections of the fragments of their substance that have fallen to earth as words to tell us, as they were passing by, of their composition and structure. Thus, thought by thought, I am led upward in considering the wonders of God's handiwork, till I involuntarily exclaim, "Day unto day uttereth speech, and night unto night showeth knowledge."

In the same manner the spiritual vision, aided by the remembrance of sacred lessons learned from the text-book of divine

revelation, links sublime thoughts together, and leads my soul out into the wide realms invisible. A star gleams in the east before day dawn, and its beauty suggests to my spirit the Bright and Morning Star, harbinger of the rising Sun of Righteousness, bringing the morning that shall never be followed by night, for it will be the dawning of God's eternal day. My vision stretches away through its never-fading brightness to an inspiring scene. Faith speeds beyond the limits of scientific discovery, and beholds more than science, with its skilful instruments, can ever disclose. I see the throne of God, and flowing from beneath it, clear as crystal, the river of the water of life, and on its banks the trees of life, with ever-ripening fruit and healing leaf. The clouds disperse, and I behold the white-robed righteous walking in the beautiful path of life, with waving palm branches in their hands. I look till the ecstatic vision dims my eyes, and I can see no more. Then upon the enraptured ear of faith sweet music swells ; it is the harmony of unnumbered harps mingled with the chorus of the voices of the redeemed, like the sound of many waters. I can plainly hear the words they sing : " Blessing and thanksgiving and honor and power and glory be unto Him that sitteth upon the throne, and unto the Lamb, forever and ever."

Blest revelation ! Blessed influence of association that can thus cheer man's spirit with the knowledge of the things that shall be hereafter.

CALVINISM AND ART.

By Prof. Dr. Abraham Kuyper.

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I.

IN a report on Holland's church-life, published three years ago, at the dedication of the Königliches Domdekanatenstift at Berlin, the Inspector Johann Gloël expressed his surprise that in the Calvinistic Free University he had heard, among other things, the mention of a department of Æsthetics. From this it appeared to me that some of our kindly-disposed critics are still of the opinion that Calvinism and art are ideas entirely exclusive of each other, and that I might remove a misunderstanding if I should place an investigation before you of the relation between them.

This subject comes, moreover, very properly under the head of the expositions of our principles, which the founding of the Free University upon other bases than the state universities urges upon us in our rectoral orations. We needs must beat a path for ourselves across the field of knowledge, not because we esteem lightly the labors of others, for with reverent jealousy we look up to our opponents, who are much mightier than we, but because we, as Calvinists, may not and cannot adopt their premises as ours. The fact of sin lies between them. The ancient volume, which is called Bible, establishes the separation. And while holier impulse renders life without knowledge an utter impossibility for us, there remains no alternative but the choice of a foundation for the palace of knowledge, and of a style which places us in direct opposition to those who, in their turn, reject our principle. Conscious weakness for such a task does not frighten us. What has not been assigned to us, others will finish after us. And to have furnished the first stone for such a building of knowledge upon holier foundation, and with harmonious dimensions, would, if needs be, satisfy our warranted ambition.

Yea, even without a reward or honor, we can do no other. It is duty that speaks, and blindfold to obey a holier impulse, regardless of the fruit which it may bear, is always inspiring and beautiful.

Repristination lies not merely beyond our scope, but is even impossible, for the simple reason that such a building of knowledge as we refer to has not yet been constructed. As soon as science is understood to be not an atomic collecting together of empirical observations, nor yet a mere arrangement of the several parts of our knowledge into distinctive compartments, but higher than these; a reflection in our consciousness of all knowledge in its organic connections—then all honor is due to Plato and Kant, who, although outside the pales of Christian revelation, stand alone thus far in their gigantic greatness as architects of such a temple of science.

Even in the first centuries the Christian thinkers felt that in principle they stood diametrically opposed to the academic instructions of their age, and the hybrid idea did not enter their minds of attaching a faculty of Christian theology to the university at Athens; but, from their Christian principle, they furnished no independent development of science. They made shift with seminaries, and the Christian Church deemed its task done when it condemned the monstrous attempt of the Gnostic, and of Manes and Origen, to fuse the Christian faith with a non-Christian philosophy. They continued formal followers of Aristotle, and adopted eclectically whatever material from Plato they found fit for use; but neither Augustin nor Thomas Aquinas *felt* the necessity that an independent, non-sectarian, general science should grow up from the root of Christian principle. The result of this was that the triumph of Christianity over the heathen world broke, indeed, the strength of pagan science, but established principally no other development of science in its place. The penalty for this omission was the return, after ten centuries of oblivion and banishment, of the once expelled pagan science in humanitarianism; and the Reformation, which came simultaneously with this restoration, failed to see that the Renaissance, least of all, acquitted it of its duty to construct a temple of science of its own. The reformers kept sharp watch

over theology, but abandoned all other science to the care of "the children of the world"; and as for metaphysics, they confined themselves to incidental defences, and ofttimes to playful skirmishes. So the course was left free, and when the insufficiency of ancient science for our times became more fully recognized, Kant at length arose, and with majestic intellectual powers and incisiveness of criticism, unequalled before or since, laid the foundation of a new temple of science, entirely outside of all Christian revelation, and upon which Fichte and Hegel, Herbart and Schopenhauer, and many besides, have continued to build, each in his own way. And Christian thinkers speedily appreciated the significance of this, and the self-same process which was seen in the first centuries of our era repeated itself. First they withdrew themselves methodistically into practical seminaries for the defence of theology, and then, under the auspices of Schleiermacher, the same attempt was once more undertaken, in which Origen and his followers had already so miserably failed, viz., to reconcile Christianity with metaphysics founded upon reason; what is called the ethical tendency in all its variegations, gives for this last-named effort the watchword to our times. But this effort could succeed as little now as in the days of the Gnostics and Neo-Platonists. The fact is undeniable, that however much Fichte, and more especially Schelling, may have played with Christian terms, the newer philosophy ends directly in the despoiling of the Christian consciousness. In Pantheism pulsate the arteries of this philosophy, leaving the Christian theist no ground for the sole of his foot. For this reason it is a purposeless expenditure of strength for Christian thinkers to wrestle with this tendency of thought, or to have any dealing whatever with it; and to him who will not let his believing and his knowing lie side by side, as fire and water (since science is to us as indispensable as the light of our eyes), there remains no choice but to lay his faith as a free-will offering upon the altars of rationalistic science, or to exhibit in the root of his faith the principle of a science of his own—and this latter is what our free university has dared to undertake. It is needless to say that this thought makes us tremble. It is a gigantic task, for which all courage would fail us were it not

that the Holy Scriptures make the rising up among us of a Plato or a Kant unnecessary. All that is needed is a definite and a conscientious effort whereby even they who reject our premise will not refuse to recognize that from our standpoint there is no escape from the stress of this dilemma.

This stress is still more keenly felt the moment we tread the domain of the beautiful ; for if we exclude Plotinus, who carries no weight for us, you search the Christian literature in vain for an art-philosophy of its own. That which Augustin furnished offers something in this line (even much more than Ritter and Zimmerman supposed), but is in many respects a Platonic imitation, and makes no pretence of coherency and finish. With the noble thinker of Aquinum you find sharply-drawn lines of distinction between Ars and Virtus, Ars and Prudentia, etc., etc.; but neither in his theory of what constitutes art nor in his theory of what constitutes the beautiful did he choose pathways of his own. Luther investigated a significance of the beautiful as little as Calvin did. Voetius considered art only from the ascetic standpoint. Milton furnishes suggestions rather than a system. Von Baumgarten, in Germany, and Hemsterhuys (so highly esteemed as a philosopher by Herder and Goethe), in our own land, are already outside the pale of Christianity. Bilderdyk's treatise is of 1783, not yet a year after his graduation. And what, after Kant, was furnished by such men as Solger, Cousin, Krause, Carrière and Eckart may, in the main, be glossed with Christian varnish, but is not Christian in its premises. Until Kant made independent thought once more a dire necessity there had been countenanced in our Christian circles, both politically and socially, so much recklessness of life that the want of an art-philosophy in the land of Rembrandt should not astonish us too greatly.

Systematic treatises or sharply-defined opinions on the relation of art and Calvinism are as little to be gleaned from histories of the times of Calvinistic prosperity in Scotland or Switzerland as from our own ; and even an investigation *à posteriori* borrowed from the history of art advances us no step. If I should refer to the rich development of art which, in the Netherlands, was consequent to the heroic age of Calvinism, the "Prince of Poets"

conclusively shows that this is no warrant for the inference of a causal relation. If, indeed, all our singers and painters, all our engravers and architects, had been Calvinists—not merely having their names enrolled with our reformed churches, but Calvinists themselves to the bone and marrow ; if with Calvinists there were no dissensions to be complained of between profession and practice ; if it could be shown that their artistic talents and artistic tendencies were to be explained, not on the ground of personal genius and disposition of mind, but on the ground of their Calvinistic sympathies, then indeed "a *propter hoc*" might be admitted here. But since the circles of our artists were so often arrayed in violent and bitter opposition to Calvinism, and the Calvinistic portion of Switzerland furnishes no art whatever, and Burns, Scotland's only poet of higher merit, rather satirized than loved the Calvinistic Highlands, no such inference can here be made. Neither may we, on the other hand, draw conclusions adverse to Calvinism on account of a dearth or absence of art, nor on account of its demoralizing misuse ; for the non-Calvinistic portion of Switzerland was equally barren of art, and Romish Scotland, in the days before Knox, did no more to establish a national school of art than modern Scotland in our days. George Jameson, who has flatteringly been called "The Scotch Van Dyck," has not captured the honor of the pallet and brush for Scotland any more than Gordon's friend, the landscape painter, George Chalmers. And less still may we draw our conclusions unfavorable to Calvinism on account of the non-creation of a specifically Calvinistic art style in the manner of what was so beautifully wrought by Islam and the Romish Church ; for neither the Lutheran and the Episcopal Church nor even Protestantism, as a whole, can boast of any such creation. And it may be, as we shall presently show, that the very withholding of such a style-invention may prove a merit rather than an omission.

If then upon this ground we protest against every hasty conclusion æsthetics may arrive at, to the detriment of Calvinism, we Calvinists, on the other hand, should keep ourselves just as strenuously from making hasty inferences from the phenomena that appear to us more favorable. In order to

know what Calvinism is for art, we must consult Calvinism itself, in so far as it governs the suppositions and phenomena which determine the essence of art and its activity, together with the character of the beautiful, which is its sphere.

If now by Calvinism we understand that interpretation of our human existence, for which Calvin's person and consciousness has determined the mother-thought, together with the line of its development, our subject places us, first of all, before the question, "What does Calvin's formal principle furnish for the appreciation of art?" The reformer of Geneva held himself formally bound in his consciousness by the Holy Scriptures. What to him was the ground for this limitation, and the way in which it affected him, may not detain me now. The fact that Calvin honored this bond is undeniable. While Luther would have "Nothing that was against the Holy Scriptures," Calvin went further when he would countenance "Nothing but the Holy Scriptures." In the application of this, however, he was not narrow, as if the Holy Scriptures were valid only in so far as they accorded with his interpretation of them, but broad, holding his dictum ever under appeal to those Scriptures,—always with this understanding, that heaven and earth had no existence such as he or any one else would suppose them to have while looking through the prism of reason and sense, but such as the Bible declared them to be. From this it follows that the inquiry for the place to be accorded to "the Beautiful" finds its answer for the Calvinist in that which the Holy Scriptures reveal concerning the ontological and cosmological coherence of all things, and with this it depends not upon idle quotations of text upon text, but upon the knowledge of that world and life-view which, so far as it concerns art and the beautiful, is commanded or supposed in the concept of the Holy Scriptures.

And according to this concept, art and the beautiful must be accorded a place under the higher and richer idea of "glory." God Himself is "Glorious" and this being-glorious was already real with Him before the world was; for Christ utters the prayer, "Glorify Thou Me with the glory I had with Thee before the word was." But even then this glory stood in close relation with the creation that was to come, and expresses the majesty

of God, by which He is able to irradiate in a world His divine perfection with highest splendor, in order from that world to receive its reflections back upon Himself. Of God's invisibleness, says St. Paul, two things are discernible in the creatures: first, His "eternal power" (Rom. i., 20) by which they were created and are upheld; but also on the other hand His "Godhead" or *θειότης*; and it is this *θειότης* (divinity)* that is the stamp of His divine perfection, which, in a creaturely way, can be impressed on every creature according to its capacity and nature. When incompleteness is no longer discernible, according to Meng's fine observation, this beauty of the creature shines forth in its completeness. God beams forth this *θειότης*, as well in the spiritual as in the material spheres of His creation. The body is glorified, and glorified also is the soul. Glory dwells on the cedar of Lebanon and glory also on the seraph before God's throne. Glory shines in the new Jerusalem, and the spiritual Church, too, is called glorious, not having spot, or wrinkle, or any such thing (Eph. v., 27). And both these thoughts are expressed by the Psalmist, who boasts that "Out of Zion, which is the perfection of the beautiful, God shineth" (Ps. l., 2). The beauty of this shining forth consists not, as Hegel and his school maintain, in the shining through of the idea, no; God's *θειότης* imparts one glory to the spirit, and another glory to that which the senses perceive. This *θειότης* even penetrates, as well to the bond that unites the spiritual and the material, as to the life-manifestation which is peculiar to each. Not only is it possible for the soul and the body to be beautiful, but the person also, who owns both as organs, and glorious likewise the thought and the word, the disposition and the deed in which his personality reflects itself. If now the stamp of this *θειότης* (divinity) is impressed in all its perfection upon any creature (always according to its capacity and nature)as extensive as it is intensive, then is such a creature glorified. If on account of a limited development this penetration is still incomplete, the beautiful may shine through, but no glory can as yet appear. Does this penetration experience opposition,

* *θεότης*, deity, differs from *θειότης*, divinity, as essence differs from quality or attribute.

then ugliness appears. And if the divine is turned into its opposite, then follows the manifestation of the satanic and the horrible. And where at length this θειότης, in company with its ἀΐδιος δύναμις, presses itself upon us, so as to transcend the boundaries of our common observations, then the exalted unveils itself; a power that works an effect so overwhelmingly, that when John on Patmos beheld the Christ in His glory, he fell as one dead at His feet.

The creation in which this glory of God must shine forth is composed of two parts. In the beginning God created not merely the earth, but heaven also, and first. In the heavenly sphere this glory is at once ready and completed; but not so in the earth. The kosmos, to which we belong, begins with being of a lower order, is destined to go through a process of development, and only at the end of this process can it attain unto the creaturely glory assigned unto it. And when this process of glorification, instead of advancing steadily, was interrupted already in Paradise by sin, the thorns and the thistles appeared, and this earth, instead of immediately gaining in beauty and splendor, sank even below its original plane; and the unsightly, the ugly, and even the satanic and the horrible began each to manifest itself as a power, in its spiritual as well as in its material existence. This was brought into relief most strongly in man, in whom its idea concentrates itself, together with its wealth of forms, and side by side with man who fascinates you with beauty of soul and beauty of body, there appears a specimen that repels you by detestableness of soul or by hideousness of countenance. And therefore, if the καθάρσις of divine grace is to work a restoration in this sphere of the creation, the energy of grace must exert itself, first of all, upon the nature of man. And this is what took place in the incarnation. In the man of sorrows God Himself allowed His θειότης to be veiled by the guilt of man and to be cloaked by our fallen nature. And after this is over, it is Immanuel also in whom our human nature ascends from lowest shame to most beautiful harmony of glory. Not the Virgin Mary, but Christ in the sanctuary above, in the state of ineffable glory, is the canon and the ideal of the beautiful. "Thou," exclaims the bride of the Church as she beholds her Bride-

groom, "thou art much fairer than the children of men." And prophecy foretells "Thine eyes shall see the King in His beauty."

The purpose of this creation of glory is not exclusively to prepare delight for the creature, but must in the first place serve the divine good-pleasure. He has created all things, this glory also, for His own sake. It is He, who lays glory in and upon His creature, only that from His creature He may receive this glory back again. God Himself enjoys this glory most fully. "His delights," says Solomon, "are with the sons of men." God has *εὐδοκία* in the glory which He Himself created. He, who planted the ear, hears also the harmonies. He, who formed the eye, sees also the splendor. You may not humanize the beautiful, as if the beautiful existed for our human observation only, and could alone be enjoyed by us. On the contrary the *soli Deo gloria* receives here its fullest stress—the glory alone for God. And the calling of every creature consists in reflecting back upon Him the *θειότης* which God poured into it, and sprinkled upon it as divine drops of dew. "Let us rejoice and be exceeding glad, and let us give the glory unto Him" is the key-note of every hymn of praise. He has His cattle upon a thousand hills. Down on the flat-lands and up on the heights, where for centuries together no foot of man has trod, has He scattered His brightness from the beginning on animal and plant, and made it glisten in stream and waterfall. And whoever at any time has experienced the rapture of beholding from an alpine top, eternally capped with snow, the majesty of God's creation, he appreciates with overwhelming force the folly of supposing for a single moment that these glaciers should so glisten like sparkling diamonds for human eye alone. No, the beautiful and the glorious, exist first of all, for God Himself. Or should He, who first conceived this beautiful, and then implanted it in His creation, have no sense, nor eye for the reflection of His own *θειότης* in the creature? A false spiritualism, which, for the sake of spirit, deals not with matter, may conceive this so to be. A false materialism, which, lost in the beautiful of matter, has no eye for the beautiful of spirit, may suppose it, but not so He, who beholds both spirit and matter as vehicles of divine glory. He

knows that God takes delight in all the works of His hands; that He who sits enthroned on high, with humor divine, laughs at the unbeautiful madness of the creature ; and that "God everything in every creature," τὸ πᾶν ἐν πᾶσι, shall once be the acme of His glory—God Himself, the glorious one, in a realm of naught but glories.

Two things must therefore be observed ; the divine art that creates glory, and the divine εὐδοκία (good-pleasure) which delights in this created glory. In so far as He creates this kingdom of glory, the Scriptures call Him the Artist and the Architect ; and because this glory, together with all things else, reaches its end in God alone, the Scriptures mention a joy, a delight and a good-pleasure which God takes in His creature.

This brings us properly to man. Over against Kant, Schelling and Hegel, who hold poetry as the highest art, Herbart is correct, in a certain measure, in preferring the plastic art. To create one's own image is the completest art. And it is evident that man cannot be God's image. God finds "the express image of His person and the brightness of His glory" in Him alone, who is Himself God. Our deepest longing is rather "to be satisfied with His likeness" Man was surely created after the divine image, and this "Gottebenbildlichkeit" (God-likeness) has a twofold consequence. First, man, too, can be an artist ; and, again, man, too, can take delight in the productions of his art. As the bearer of God's image, he may create something beautiful, and may take delight in the beautiful.

This talent for art is no separate endowment in man, but it is an unbroken utterance of the image of God in him. In the same way the capacity to enjoy the beautiful is no endowment side by side with intellect and will, but the direct liking, on account of his "Gottebenbildlichkeit," for the divine stamp in the creature. "God hath made everything beautiful in His time," exclaims the preacher. "Also He hath set eternity in the heart of man" (Eccl. iii., 11). Kant's assertion that the beautiful "ohne Interesse und ohne Begriff algemein gefällt' approaches this truth, but takes it up in too limited a sense. Art spreads itself over all our life. To form our character harmoniously, and our surroundings, is also beautiful art, and

everything that affects us favorably in the beauty of a character, of a Laocoon group, or of a waterfall, by form, appearance, relation or utterance, addresses the image of God in us. To bring forth the beautiful and to appropriate the beautiful in ourselves is not the task of any single capacity of ours, but of that "Gottebenbildlichkeit" which is the soil in which roots every power and every capacity of ours.

And because it is the θειότης that glistens in the glorious and shines through the beautiful, and because God is known unto Himself and to none nearer, "every effort," as Winckelman justly remarks, "to analyze the beautiful must suffer shipwreck." As soon as you analyze the beautiful, it is gone. Matter and character and form, as vehicles of the beautiful, may be reduced to their component parts, but never the beautiful itself. As life escapes before the dissecting-knife can reach it, as love vanishes the moment you seek to explain it, so also the beautiful was meant to be enjoyed in its entirety; and he who does not so enjoy it, enjoys it not at all. Even when the beautiful of a very low order admits apparently of an analysis, it eludes the grasp of the understanding the moment it becomes of a somewhat nobler worth, until at length the beautiful that has become the glorious cuts off abruptly every inquiry, and accepts naught but your admiration, simply because you would have to analyze the θειότης in God Himself in order to analyze it in His creature.

For this the Calvinist considers every artistic capacity in man to be a gift of God—a work wrought in him by the Holy Spirit, which, however, in general does not accompany that work of the Spirit which disposes man to piety. Artistic talent and tendency are classed under general, and not under particular, grace. For the Calvinist indeed had ever a keen vision of the fact that God was God also over the peoples and persons who called not upon His name, and that He gave unto our fallen race a glorious possession of intellectual powers, of an inborn sense of justice and of artistic talents, which were bestowed in rather richer measures upon those that rejected His name than upon those who honored it. By this we do not mean to imply that Israel was deprived of every artistic talent. Their beautiful poetry is sufficient proof for the contrary, and he who in Chipiez's

works has admired the beauty of the great temple pillars knows better. But the fact that the first art that was practised, viz., the art of music, arose with the descendants of Cain led Calvin justly to observe that God imparted the gift of art mostly to those who forgot His name, and who, thanks to their richly philosophic, judicial and æsthetic talent, were thus called by God Himself to glorify the Creator in their own way.

In human art also the real, immanent artist is God Himself, who also in "the operations of His works" seeks glory for Himself. The ground for this capacity of our nature in the "Gottebenbildlichkeit," even as the spark of genius and the glitter of the talent and the world of imagination from which the artist takes his forms, come to him directly from God. Yes, even the individual style and character which he creates in the productions of his art have their root in the peculiarity of the personality which God's ordinance assigned him. The beautiful in nature and the beautiful in art do not stand opposed to each other as divine and human, for only herein do they differ, that the one flows from God directly and the other mediately. But whether it springs from Him directly or mediately, in all the beautiful there never shines other than His θειότης (divinity), and of the entire world of art which Greece and Italy and the Netherlands created, no honor is due to the human artist, but to the divine Artist within him. Practice never produces art; art is only born of God. And everything that exercise and effort accomplish is but the making less of the hindrances that prevent the flaming up of the divine spark in the artist.

One more observation will end this hasty sketch of the æsthetic background of the Holy Scriptures, according to its Calvinistic interpretation. Even before Socrates the question was asked, Is art an imitation of nature, or does it transcend nature? Is it μίμησις, or something else, or something more than this? And the Scriptures give us a twofold answer. First, that nature, whose beauty enters our eye and ear, does not furnish the highest beauty. A richer effulgence of the θειότης than this creation admits of shines forth in the realm of glory. Here only one jewel for the diadem, there the foundations themselves of the new Jerusalem, pure jasper and emerald.

Art that aspires unto the highest must far transcend nature, and he is no artist, by the grace of God, who, before creating anything himself, has not looked into this divine glory. But also, on the other hand, the beauty of nature in the earth is distinguished in degree, but not in kind, from the realm of glory. With the same body with which Immanuel hung on the cross is He now seated in glory at the right hand of the Father. On Tabor did this glory appear, even in the midst of the beauty of nature, and as if to exchange with it greeting. Upon Sinai there was shown unto Moses "the pattern of heavenly things" (the *tabnit*) after which to construct the tabernacle in its splendor. And when on Patmos the glory that is to come is pictured forth, all the glistening forms are allied to our forms of life, only heightened in degree of eminence. Whoever, therefore, following in the footsteps of Fichte and Hegel, separates nature from art is at fault. Nature remains for us the pattern for forms and tints, but the real artist makes these earthly lines and colors burn with a deeper, richer beauty.

This outlines approximately the world of the beautiful and the world of art, as in the Holy Scriptures they are supposed to be. "From God, through God, and unto God are all things" also in this wondrous sphere of glory, and therefore there lies in the ordinance of the beautiful that impelling motive which tolerates no opposition anywhere. The beautiful as well as the glorious is not satisfied with a part, but strenuously demands the whole. Beautiful in body, but unbeautiful in the soul, curses. God's θειότης (divinity) is bent upon appearing equally in both; and where, on account of our inner division of soul, this harmony still lingers, and ofttimes becomes even an antithesis, the Somatic beauty may still remain beautiful, although the soul is unsightly and even devilish. But such one-sided beauty does not satisfy our ἐυδοκία (sense of pleasure). What is wanting here is the beautiful in its connection, and the beautiful of the senses, which extracts from the beautiful of the soul the strength to bloom as a parasite, ends in offending rather than in satisfying the liking for the θειότης in us.

If now I briefly inquire, in order to determine our position, what the relation is in which these scriptural premises of æsthet-

ics stand to their latest philosophical development, I will, in pointing out the following points, keep myself carefully from passing judgment upon the various schools.

The antithesis between idealism and empiricism, in all its variations, vanishes before the Holy Scriptures. Does the θειότης manifest itself in a way of its own in the spiritual, and in a way of its own in the material phenomena, and again in a way of its own in the synthesis or combination of the two, then, such investigations as those of Helmholtz, Pfau and Semper are of equal merit with the idealistic constructions of Schelling and Solger, Seising and Köstlin, Zimmerman and Hartman; but in each of these groups the objection arises that they sought the essence of the beautiful either in spirit or in matter, and thus sacrificed one realm of the beautiful to the other. A color, a tone, a line can be beautiful in itself as well as a character-trait or a disposition, a thought or a deed, and even Kant's "Independent Beautiful" demands our esteem. Herbart's more correct interpretation of idealism can satisfy the Calvinist as little as Schopenhauer's effort to transfer the centre of gravity from the idea to the will. We gratefully accept the rehabilitation of the "Ding an sich," if it be only in its wealth of forms, as a counterpoise to Fichte's extravagant subjectivism; but it avails us not, so long as the connection between the object and the subject remains an open question; and however much Schopenhauer's telematic premises, together with his pessimistic views of our fallen world, may furnish connecting points for the ontology and nature views of the Holy Scriptures, his æsthetics nevertheless lie too far apart from his pessimism for them to constitute an advance, and his doctrine of the relapse of "life" into the Nirvana of "being" is too Buddhistically tinted, for us artlessly to exchange for it the perspective of a realm of glory, such as is offered in the Scriptures.

Solger's Theosophy, and Eckard's Imitation of Origen fall into the error of presentating a Geist-leiblich, whereby the boundary lines between matter and spirit are wiped out, and whatever Eckard may otherwise have meant, God is thereby pantheistically fused with the world.

The difference between these representations and that of the Holy Scriptures is, that the æsthetics of these schools humanize

the beautiful instead of making it divine, in origin and energy as well as in purpose and appearance, and that from them escapes the creation of man after God's image, as the connecting link whereby man in the divinified beautiful reaches the highest place, next to God Himself, and is made capable of producing and enjoying the richest beauty.

Moreover, by the representation of the realm of glory, the Scriptures open up an æsthetic perspective, whereby a surprising light is shed upon the relations both of nature and art, and of spiritual and sensual beauty and of the beautiful and the good.

By presenting both spirit and matter as creatures, the Scriptures make us esteem both as organs of the θειότης, each for itself called upon to manifiest a beauty of its own ; while the indwelling of the beautiful, not only in the material, but also in the spiritual, creates the possibility of directly honoring the beautiful also in God, who is a spirit, whereby the beauty of matter is not underestimated nor yet the Divine Being reduced to mere nature.

By placing the essence of the beautiful in the shining through of the θειότης, the old strife between religion and art is transferred to the antithesis between spiritual and material beauty, while this omnipresent inshining of God's glory in everything that as beauty of soul or of eyes is to us a delight, leaves the investigation for the organs of the beautiful entirely free, without having the beautiful itself die under the dissecting-knife.

Finally, in æsthetics there has been too little mention of the Christ, who, " the express image of God's person " and partaker also of our form in soul and body both, presents a glorious synthesis in the heavens, wherein the ideal of the true and the good meet with the ideal of the beautiful, not in the abstract, but concretely and in full energy of life and personality.

If now the philosophical development of æsthetics, in so far as it does not recognize our allegiance to the Holy Scriptures, had arrived at a result, which, compulsory in the main, had been accepted by all authorities in æsthetics, then might this critique, which rests upon Scriptural premises, appear an hazardous undertaking. But this is not the case. The idealists are yet opposed to the sensualists on the left, and to the empiricists on the right,

and within the circle of the idealists the formalists still cross arms with the abstract, transcendental and absolute idealists, while the theosophers, and now again in Techner the eclectics, defend a position of their own. This is most oft a chaotic mingling of systems, wherein Hartman has vainly tried to create order. This mixture of systems was the direct outcome of Kant's subjective starting point, even though Kant's subjectivism was limited by the hypothesis of the "Wesensgleichheit." Do not forget that this subjective line, drawn by Kant, certainly tended, even with Fichte and Hegel, to give rise, according to the prophecy of Herder, to an intellectual aristocracy which had no eye for the actual wants of the people, against which a violent reaction is more and more being called into life. But this shifting of the centre of gravity to the subject also opened an outlook for the Christian idea to capture for its content a scientific right of existence. Whatever bleeding stripes Kant dealt out to us, he did nevertheless deliver orthodoxy from the Schablon's Mechanism of Wolfianism, and the confessors of the Christ who, in the Schleiermachian, Theosophical and neo-Romish circles, and now again in the school of Ritschl, tried to maintain a Christian world-view, owed their high courage and noble enthusiasm to the vigorous hold which the athlete of Königberg laid upon his operations from the subject. And even though Ritschl's school convincingly shows as its ripest fruit how this German reveille of Christian science wanders ever farther from our sacred mysteries, yet I deem it a remarkable gain that the "We believe and we confess," which the Reformation chose as its subjective starting point, received such surprising support from the philosophy of our age.

II.

And so it appeared that Calvin's formal principle did not confine him to a world-view which, acosmist-like, excluded art, but which, on the contrary, placed at his disposal an ontology and a cosmology, wherein the realm of the beautiful is held in honor by God Himself; but this by itself furnishes us no means of appreciating the direction of Calvinistic influence upon this ground. I will therefore now inquire into the several character-

traits of Calvinism, in order to learn in how far they aided or opposed the development of an art-life.

In the very fore-front then place the Calvinistic liberation of state and of society from the fetters of the Church. Ever since Constantine supposed that he would strengthen the Church of Christ by converting her into a state Church, many evils have sprung from this anti-Scriptural theory From the state the world stole into the ecclesiastical organism, and by the ecclesiastical organism an ecclesiastical net was stretched around state and society. Favored by the weak political and social systems of the Germanic and Gallic peoples of the time, it tended readily to convert the state Church into a Church state, and it can scarcely be denied that, at the end of the middle ages, almost the entire social utterance of life, including art, bore too churchly a character. Even the Renaissance lacked power to escape from this enchantment, and if there entered more reality of character and of detail into the creations of Van Eyck, and the Italian pallet restored nature and action to the human form, yet the art of both continued by preference to move in the churchly atmosphere. Art was not royally set free by the Renaissance. Complete emancipation came to her from our Calvinistic Netherlands, and this is due in no small measure to Calvin's interpretation of the relation between the Church on the one hand, and the state and society on the other. The ground for this more accurate interpretation lay in his distinction between a general and a particular grace.

Do we deem that God's glory is seen only within the enclosures of the Church, and that the life lived by the peoples outside of this churchly precinct bears a character almost exclusively demoniacal, then of necessity must the effort be made to make the whole life churchly, and exorcism is then the ordered means by which to transfer to holy grounds something of the unholy. And this is what the Calvinist rebelled against. He knows nothing of exorcism. He deems this earthly life of itself of deep significance; he recognizes that also in the heathen world there glow sparks of higher grace; and he confesses that God the Lord imparted to our race, after the fall in Paradise, such gifts of grace as made an honorable human life

possible, even outside of the interests of salvation. To the Calvinist eternal salvation is not the fruit of *churchianizing* the world, but of election only; and this election which pertains to eternity, and the general grace which is bestowed upon our race for this life are two things. This was valid for the peoples in their antithesis to Israel, and was also valid for the distinction between Church and national life in every Christian land. And so it has come to pass that the Calvinist caused the Church to retreat within her own pales, and exacted from rulers and people the duty of leading a life of liberty to the glory of God upon their own responsibility, outside of every churchly interference, and thus Church and State were separated. In the Church no other attractions were sought than those which followed from the mysteries of grace and therefore every worldly ornament was put aside ; and upon society also the severely-churchly stamp was no longer imprinted. Both Church and State led from now on each a life of its own, and were left to develop, each after its own kind. In Rubens and Rembrandt this transition is peculiarly marked. In the Southern Netherlands, presently emptied of all Calvinism, Rubens' marvellously artistic talent, however impatient, still remained in the churchly bond ; but in the Calvinistic Northern Netherlands Rembrandt's divine genius produces his enchanting biblical canvasses in the midst of our middle classes of society. Art with him hovers upon pinions of its own. Set free from the chords of the Church with unfolded wings, it cast itself upon the broad sea of life. This was often done, I admit, in order in its realism too greatly to forget the ideal, but yet with a deepening taste for nature and life, which was a benefit to all the later development of art.

A second trait of the Calvinistic character, having its rise in the first, is its estimation of the body, next to and on account of the soul. From the very first question of our Heidelberger you learn that the "only comfort in life and in death" is sought in the fact that we belong unto our faithful Saviour Jesus Christ, not merely after the soul, but also after the body. This was the antithesis against the Anabaptist who ignored the body. Godliness must be a gain with contentment ; accompanied with a promise not merely for the coming, but also for the present life.

If Rome's ideal strives to bring all of life under the shadow of the Church, and the Anabaptists cut the very arteries of life, in order to foster nothing but a divine kingdom in their midst, the Calvinist desired for his Church the most purely spiritual ideal; but beside the Church, and for its sake, he demanded a free and honorable citizen life, addressed to his human nature. He deals with soul and body both, not going out of the world, but in the world endeavoring to serve his God and to enjoy his every good and perfect gift. You may not confound therefore the Anabaptist with the Calvinist, nor put to the accounts of Calvinism whatever contempt for this world, as held by the Anabaptists, still remains in some circles. The cloister has never been loved by us, nor has the eschatological underestimation of the earthly life. Much religion, and carelessness of body, clothing and furniture were ever opposed to the deeply harmonious taste of Calvinism. The beauty of cleanliness, in which our national character excelled, was fruit of this selfsame realistic disposition. Much of the artistic beauty of our dress and fabrics had a similar origin. And far from closing the eye against the beautiful in this world, our power of observation of real life has directed the artist-eye with heightened energy towards that wealth of light and tints which every autumn-time our God pours out so wonderfully upon our Dutch coast regions. Severely spiritual in the Church, but equally realistic outside of the house of prayer, Calvinism has fostered the taste for the beautiful and for art in the life itself, and not outside of it or above it.

Upon election, in the third place, do I fix your attention, not as if every Hollander had fathomed the depth of this mystery; but yet Calvin's mighty conception of God's sovereign electing grace has exercised an influence upon our entire national conception of life. The *Cor Ecclesiæ* caused its pulsations to be felt in all the arteries of society. As concerning art, the doctrine of election implies three tendencies. Election withdraws the eye from every thing that wills to be great, and inspires preference for that which is small. If God delights in concerning Himself with the affairs of a forgotten day-laborer, who is of no account, or in calling unto princely dignity in His kingdom a

castaway of the world, then for a people that lives under the impression of this election, the standards of worth are changed. It hurries no longer with feverish haste after that which glitters and is high, but concerns itself also in turn with that which is apparently worthless, and conceives taste to look for something rich in that which is apparently insignificant and common; to create it in it; and to distill it out again. In consequence of this in the realm of art it takes no delight in Greek mythology, nor in saints or heroes, but discovers significence in every object of the ordinary life, in order by the election of art to turn a something that was nothing into an object of everybody's admiration; hence our genre school. But election also fixes the eye upon human personality. If it changed the coward upon the field of battle into a hero, it also caused the man who had undertaken the deed, to stare with questioning astonishment. In the Holy Scriptures election unto salvation has also for its broader background an election unto a life's task, and a call to a life's work for everyone. This brought rest in the general tenor of life; and gave decision for doubt; and made us look back of every citizen, who undertook something excellent and great, for that marvellous mystery of the power that impelled him. Hence the predilection for the male head; the reproduction of that man not as a bust, but all the way down to the feet; and in our celebrated painting, "The Night Patrol" (the largest of Rembrandt's canvases), on the one hand that overpowering strength of expression and character, and yet again that wonderful harmony that fuses and unites their brave forms and vigorous figures, by dipping them in mysterious lights. And finally, election penetrates into the very depths of the miserable and reaches out its hand to save, back of the gloom of sorrow suppressed. Hence the losing itself, as Taine so beautifully observes of Rembrandt's school, in the life behind the sombre tints. It is not all sunshine in our human existence. Upon oh! so large a portion of our life there rests a chiaroscuro, and the effort to spy disposition and sensation of our human life, in that gloomy self, impresses upon Rembrandt's school better than upon any saintly image, the mark of the *CHRISTUS CONSOLATOR*. For did not also the eternal compassionate one

look down from higher brightness upon the guilty chiaroscuro of or fallen estate?

Our Calvinism, and herewith I come to a fourth trait, is democratic. Democratic, not to bring life down to the roughness of the blockhead or the braggart, but to impress the citizen with the sense that he himself helps to form state and society, and is therefore obliged himself to think and to act. And in our Calvinistic Netherlands art too has become democratic, and those arts which, in order to flourish, demanded more aristocratic conditions, thrived here scarcely, or not at all. Our strength lay not in architecture, nor yet in plastic art, even though we were all Europe's teachers by pencil and etching-needle. Architecture as well as sculpture asks for palaces and cathedrals; calls for mighty rulers and splendid prelates; they demand a power that is able to command the peoples to cast their fortunes into monuments of their own greatness. These arts were seen to flourish in free states, only where the location of the country promoted a life in the open air, and natural stone was hidden close beneath the surface. And though I do not derogate in the least from the praise given by Trahndorf to what he calls the "ehrlich und Wahrsein" of our Netherland architecture, yet the democratic character of our Calvinism prevented the rise in the state of a luxurious state, and court life; and in the Church, the rise of a rich hierarchy—a happy default, which repressed architecture and sculpture in order to concentrate well-nigh all our artistic talent upon the pallet and the lyre. The obstacle for the flourishing of the plastic art lay not in iconoclasm. The Lord's command forbade the bowing down before an image, but not the image itself, as shown by the cherubs in the tabernacle. And in so far as it prohibited every representation of the creature, it combated the sin likewise in the products of the art of painting. The destruction of so much that was beautiful and glorious, by those justly rejected image-breakers, proves nothing against the love that can animate the Calvinist for the beautiful. Vandalism which, in all ages and every land, takes delight in breaking things to pieces, may have mingled with it; the motive was only a zealous protest against that which in the plastic art was censured as abuse.

A fifth undeniable trait in our Calvinism is, that it has fostered almost everywhere the love for home. Its confession of the general priesthood of believers expressed itself in this. Set free from priestly meddling, life was withdrawn from the cathedral into every one's home, and in that home to the centrum of the heart. Life was not outside but within. Not before the eye of men, but of God. God's judgment in the conscience weighed heavier than the judgment of public opinion. Decentralization followed and at the end of the fearful struggle with Spain, every housefather found himself free and happy, back again in his own home-circle. And when, as fruit of that struggle, prosperity increased, a strange elasticity entering every kind of trade, and in antithesis with the restless conditions of war, from which they emerged, peace and calm rendered every Netherlander social, happy and contented, there awoke in the Netherland heart such a sympathy for the fireside and pleasure for his polders and fields, that with the sympathetic eye an ever-richer beauty was discovered in them, and poetry of the heart was lavished upon them, which gave rise to that original school of the Holland burgher-life, with its home and country scenes, which only recently, also in her repristination, awarded us the laurels at Munich. I do not except even John Steen. Our self-sufficient burgher-life had also its drastic side, and with this drastic also the spirit could not rest until judged in the exhibition of its self-humiliation.

Less favorable for the development of art was undoubtedly a sixth trait, which should not escape our notice. Calvinism is Puritanic. It forbade the play, the dance and theatre-going and had little sympathy for nude art. Moral motives were here at stake. That self-same Calvinism which by its eternal election denied all merit in good works, lost itself just as little in a passive, ethical indifferentism, so that no tendency urged chastity and modesty more strongly than the Calvinistic tendency. The idea was offensive that the nude image could not be chiselled or painted, unless a woman conquered her shame and exhibited herself for hours together in the artist's studio. And also the undeniable fact was repulsive that no theatre prospers but for the sacrifice of womanly dignity, and that nearly every actor is robbed of a character of his own, by con-

sta t play in the character of another, and hence becomes inwardly untrue. This did not lead to the rejection of the drama itself. At Geneva, Calvin declared himself exclusively against the abuse. Had the disposition of the time been such, that a chaste drama could have been produced, tragic as well as comic, without actresses, as once it was in Athens, then the protest would not have been heard. The ideal was not contested, but the self-humiliating drama. And he who peruses from the times of Breederoo, the scenes of Lucelle, upon which even a Tesselschade looked with delight, and he who in our days has heard something of the life behind and before the scenes in our great cities, can scarcely suppress the complaint, that the over-excited search after pleasure that draws our public to the theatre, has little more in common with the love for art than the name, and impoverishes our people, more than it enriches them, ethically and aesthetically. And the real friend of art is little inclined to laugh when, in the foci of our modern civilization, he hears little else than the mention of a dramatic dissipation and distortion, which threatens more and more to kill the real dramatic art. And if a people, like that which in South Europe almost lives in the streets, cannot do without the drama, a Calvinistic people, which by preference absorbs itself in the drama, as tragic as it is comic, of the home-life, stands aloof from the public drama the moment it can no more be enjoyed except at the price of a moral decline.

A last trait, to which I call your attention, is the unbounded love of liberty with which Calvinism inspired the nation, wherever it made its appearance. The "*libertatis ergo*" was and always remained the device for us Calvinists, and which no one could ever take from us. It cannot now be shown how this love of liberty roots again in the dogma of election. Let it suffice to remind you of Bancroft's word "that men, who knew themselves elected of God, feared not before tyrants or devils." But with this liberty-love it bedewed art. And is not every passion of art explained by the motive of wrestling itself free from the fearful pressure, whereby the power of nature, of destiny and of surroundings, of the past and of the future, of notion, disposition and impression, enchains our personal liberty? By this liberating effect does art show her real capacity and only by this does

she maintain the honor of her name. Driven by this real art and liberty passion Netherlands' people transformed its own inhospitable regions into a picture of art, having the polder dike for its boundary line. By this art passion, animated by the passion for liberty, it created a world of art for the country man, in furniture, clothing and fabric, which to this day makes an impression upon every foreigner of being interesting at least; and thanks be to this self-same impulse, which animated our artistic talent also with this love of liberty, so that stranger and country man stand delighted before the beautiful creations of pencil and etching needle, which even yet repeat the fame of our ancestry, in the art galleries of Europe and America.

Recapitulating what we have thus far found, I come to this conclusion. Calvinism, in so far as it impressed its stamp upon our national life, outside of the Calvinistic circles in stricter sense, possesses its imperishable merit in that it gave art back again unto itself, that it disclosed for art, an up-to-that-time unknown world in the common burgher-life; that it opened the artist's eye for the beautiful in that which is apparently nothing; and that by fostering the love for liberty, it has stimulated the passion for art. Further, that from the broad ranks of the arts it rather held back architecture and the plastic art, than helped them to develop, and finally that, since with the want of harmony between ethic and aesthetic life, the loss of moral elasticity would be most disgraceful, it withdrew its favor from the dramatic art, not as this should be in its ideal, but as it appeared it only could be in practice.

A result, which does not deny the fact that other influences of national disposition, of character, of history and artistic genius, also had part in the unequalled development of art in the seventeenth century, but by which protest is entered against the slander which, in unhistoric circles, was heard against our Calvinism, as if in obscurantism it only taught the despising of art, and left not its light-tracks behind it, in that delightful world of art which came in to charm the eye immediately after its triumph here.

To be followed by the concluding Chapter III. in the next number of the CHRISTIAN THOUGHT.

MATTER AND MAN.

[A paper read before the American Institute of Christian Philosophy, December 8th, 1891.]

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WHEN Leibnitz declared that Descartes had come into the ante-chamber of truth, he was playfully asked whether he himself thought to lead men out of the ante-chamber into the cabinet of Nature. His reply was, "Between the ante-chamber and the cabinet is situated the audience-chamber, and it will be sufficient if we obtain audience without pretending to enter into the interior." The modesty of this utterance has not always been emulated by the theorists and expounders of philosophy and science. Their imposing conceptions and subtle skill of interpretation have profoundly impressed us who stand listening in that great audience-chamber ; but too many of them have unwisely increased the difficulties of understanding their position by controversial heat, arrogance of assertion and the conscious or unconscious ejection of the venom of intolerance. The tribune has never been unoccupied from the days of Leucippus and Democritus, Plato and Aristotle to Kant and Hamilton, Lotze and Spencer. Beside the representatives of our Western thought have also come the deep thinkers of the East—the Hindu with his Shat Sastras, the Buddhist and the Theosophist. They have all sought for the ultimate facts of being, and have all presented their supposed demonstrations of truth. With so great an array of students and sages coming up out of so many centuries, with the accumulated data from the realms of consciousness, geology, biology, chemistry and physics, it does not seem entirely unreasonable to expect that we have at last secured the solution of many of the most perplexing problems that have wearied and burdened the minds of men—*provided* always that these problems are solvable by human

reason. When, therefore, a plain man who has a yearning for the truth, but neither requisite learning, laboratory nor leisure for thorough and independent investigation, propounds a few questions from the catechism of honest inquiry, may he not naturally expect clear and definite answers? He will not be, he ought not to be, put off or deceived by fanciful, obscure or intricate speculations. His questions have to do with things with which he has been familiar, and with which men everywhere have been familiar always. They are only five in number, and are as follows: What is matter? What is force? What is life? What is mind? What is man? If these questions are too many, he would probably, for the present, be content with the answer to only one: What is matter? It is, of course, no answer to tell him what are the properties of matter. We must have a definition which will apply equally to granite rock and ethereal gas. When we have found the attributes of a common underlying substance, we have not yet comprehended that substance; all we know is that certain traits or qualities inhere in it. What is that in which they inhere? It is something which we call matter; this is all we know. To call it "the physical basis of life," or "the universal basis of objects of sense," or "the aggregate of atoms and their motions," is only placing additional emphasis upon our ignorance.

Waiving, then, this question, will our friend, the plain man, get any satisfactory answer to the next one: What is force? Suppose the answer to be, Anything that produces movement in matter. He replies, "Anything!" If you seek to make it more plain, and say, Why, it is that which produces attractions, resistances, affinities, etc.; he simply replies, "That!" We now take him to Mr. Herbert Spencer for the latest information, and receive the following explanation: "Our conception of matter, reduced to its simplest shape, is that of co-existent positions that offer resistance; thus experiences of force underlie the idea of matter. Force is the ultimate of ultimates." "We are irresistibly compelled by the relativity of our thought to vaguely conceive some unknown force as the correlative of known force." "By the indestructibility of matter we mean really the indestructibility of the force with which matter affects us." Mr. Grove also will

tell him that "a force cannot originate otherwise than by devolution from some pre-existing force or forces." Perhaps the plain man will be satisfied with all this; but, if so, it is because he has been charmed away from his original quest. Force, as Mr. Spencer would say, is simply "a mode of the unknowable." To the plain man, that seems only another way of saying that no man knows.

The nature of the replies to the simple questions already propounded would lead our friend to infer that the presentation of his third question would be followed by an almost oppressive silence. But no sooner has he asked, What is life? than the air is filled with the resounding cries of contending theorists. Determined to know the ultimate facts about living organisms, he takes his stand by the side of the microscopist. He finds himself looking down into one of Nature's workshops. He sees nutrient matter passing into the organic cell, there being transformed into living matter, and reappearing as formed material. The cell seems, therefore, to be the unit of life. As he comes to inquire into the biological usage of the word "cell," he learns that it does not necessarily mean a compartment surrounded by a wall. It is rather simply an independent part or portion of protoplasm. A nucleus is not always discernible; but, as Professor Conn, in a recent volume, entitled "The Living World," tells us, it "is probably always present in active cells, either as a distinct body or as a diffused mass." The unit of living organisms, then, is this independent "bit of nuclear matter surrounded by protoplasm." Just, however, as the plain man is about to say this he is cautioned by the biologist against the danger of being too certain, in view of the fact that "more recent and exhaustive study of cells is beginning to show that the simple cell is not itself the unit of life, but is a complex body. Processes are found to take place inside the cell which indicate that we are still far from the unit of life." The nucleus, the essential part which regulates the activity of the rest, is itself complex. "There is perhaps," we are told, "as broad a series of phenomena to be studied between the single cell and the real unit of life as those which we have found between the higher animals composed of many cells and the single cell." Somewhere, however, in this

little protoplasm life first appears in the organisms of the material world. This is the ultimate fact of science in that direction; this is the only answer which science has yet been able to make to the question, What is life? It seems hardly necessary to say that this is no answer at all. To tell where an agent is found may give some clue to his intentions, but cannot be accepted as a definition of his being. Let it be reaffirmed emphatically, science has no answer to the question, What is life? Philosophy attempts an answer, while speculation fills our ears with clamor. Unfortunately the scientist and the speculator are often the same person. When he seeks to be a philosopher also we are hopelessly confused by the inextricable tangle of expositions and hypotheses. We are told that a rational deduction "from the fact that a combination of carbon, hydrogen, oxygen, and nitrogen is necessary to life" in plants and animals is what Professor Tyndall himself calls "the ultra-experimental conception," and that "life is the immediate resultant of the properties of these elementary substances, the product of a certain disposition of material molecules, and all vital action the result of the molecular forces of the protoplasm which displays it." Life is the result of certain combinations of matter, according to this theory. Compounds may be quite unlike the elements from which they are made. Water, for instance, has properties not possessed by either the oxygen or hydrogen forming it. Protoplasm represents such a complication of molecules as has for one of its properties the untraceable one of life. The "molecular machine" of organism is a self-directive automaton. Death is only the loss of "chemical or molecular composition." "Life is simply an abstraction from the properties of living things." This is the language of Mr. Huxley: "A mass of living protoplasm is simply a molecular machine, the *total* results of the working of which or its vital phenomena depend on the one hand on its construction and on the other upon the energy supplied to it; and to speak of vitality as anything but the name of a series of operations is as if one should talk of the horology of a clock."

There is no need of the assumption of a creative fiat anywhere. All we need to assume is that life is a property of the complexity of protoplasm. Originally, there was no life. The

cooling earth produced conditions which have never since been reproduced. The law of continuity must remain unbroken. Chemical laws are universal. Working under different conditions from those within our cognition, different results, inconceivable to us, may have been produced. Compounds and complications may have thus resulted which finally produced a composition "capable of causing other bodies to change," *i. e.*, protoplasm. At length, the power to use organic food was developed. Then the organic world divided into two parts; one part developed chlorophyl, enabling it to live on inorganic matter, and the other without chlorophyl developed "an almost universal power of motion in order to seek food." Thus arose the distinction into animal and vegetable kingdoms. All the rest is clear. But the plain man is opposed to the multiplication of fanciful fictions while he stands waiting for an answer to his question, What is life? If it be said that life is the result of certain chemical combinations, he asks, why in the name of reason, with all the appliances for investigation, and all the results of investigation in biology, chemistry, and physics, there has never yet been produced life from dead matter. He knows that, as the result of prolonged, careful experiment by Pasteur and Tyndall, the doctrine of spontaneous generation has been driven from the field of actual science. Mr. Huxley, in his remarkable monograph on biology, makes this very plain. He says: "The fact is that, at the present moment, there is not a shadow of trustworthy, direct evidence that a biogenesis does take place or has taken place within the period during which the existence of life on the world is recorded. . . . Of the causes which have led to the origination of living matter, then, it may be said that we know absolutely nothing." Mr. Herbert Spencer seems to think that solar radiation will account for the origin of life. But as Prof. Conn well says, "Sunlight may fall upon CO_2 H_2O, and NH_2 eternally without producing the slightest tendencies toward a synthesis of these elements. But let this occur in any living green plant, and how different the result. In some way living matter causes a synthesis to take place. The presence of life in an organism causes certain chemical changes to be set up in it which result in growth." By

subtle assumption and nimble dexterity, Mr. Spencer passes from the sixty-ninth section of his "First Principles" to the seventieth, as confidently as though he had constructed a safe, broad bridge of logic and scientific demonstration from dead matter to feeblest life, from the inorganic to the organic world. As we look only for facts and legitimate argument, thereupon we see that there has not been a moment when his boasted cable of evolution has been stretched across the yawning abyss. If we ask the Agnostic what life is now, we have the answer which has at last become very familiar: "The broadest and most complete definition of life will be: The continuous adjustment of internal relations to external relations." To say that life implies such adjustment is one thing; but to say that life *is an adjustment* would be no more wise than to say that the moving force of a locomotive was an adjustment. What power maintains through continuous change constant identity? We may ask with Prof. Bowne, What power differentiates "identical elements into different forms? What is it that raises the elements to the upper plane? Do they do it themselves, or is there a mystic and subtle chemist in those little cells who is the author of these inimitable wonders?" Prof. Mivart criticises the famous definition from another standpoint. "It is too narrow because there are in living beings many simultaneous and successive definite combinations of internal changes which are not related to corresponding changes in surrounding nature. If a hen's egg be maintained at a constant moderate temperature, and with no variation in the surrounding atmosphere save that which the egg itself occasions, its contents will go through a long and elaborate series of complex changes to which no changes in its environment correspond, either in variety or amount. . . . The more correspondence there is between the properties of a poison and the resulting bodily activities of the poisoned the more certainly does death ensue." It is interesting, not to say mirth-provoking, to notice something of the method by which Mr. Spencer reaches the conclusion thus criticised by Prof. Mivart. He chooses assimilation as an example of bodily life, and reason as an example of the life known as intelligence. Then he institutes a comparison between the mastication and digestion of food,

and the long chain of states of consciousness necessitated by an argument.

The plain man is getting together the answers to his question, What is life? Here they are: Life is a resultant of properties. Life is a product. Life is a property. Life is the self-direction of an automaton. Life is an abstraction. Life is an adjustment. The plain man turns away from such answers, disappointed. Not even Prof. Mivart can quite satisfy him as he says, "Life is the sum of the activities of living creatures."

Nevertheless, he has learned a good deal about protoplasm. It is "a definite chemical compound"; it is the unit of life. Something has been gained. Just as he is felicitating himself on this fact the biologist gives him the latest information from the field of science. "Protoplasm is not a definite substance." "When we call protoplasm the physical basis of life, and try to prove the unity of the organic world by its universal presence in all living things, we have not by any means reached the bottom of the matter. There is no such thing in nature as protoplasm in general, but only particular kinds of protoplasm. Protoplasm can produce new protoplasm, but not new protoplasm in general —only new protoplasm, just like itself. To-day we almost may say that the study of the structure of protoplasm promises to become as complex a subject for the future as the study of the animal kingdom, on a large scale, has proved to be in the past. Instead of looking upon protoplasm as the primitive life substance at the present time, most special students of protoplasm would regard the granules as more likely the fundamental part, and all else derived." Protoplasm, as a term, is an abstraction. If there be a "physical basis of life, it is not the protoplasm, but the granule."

To the fourth question, What is mind? the materialistic answer is prompt, if not conclusive. Mind is only a manifestation of matter. Materialists used to say, with Cabanis, "Thought is a secretion of the brain, just as bile is a secretion of the liver." Now, however, Moleschott tells us "thought is a movement of matter." It follows from this that mind and thought must be determined by the laws of motion. Thoughts will be true or false, good or bad, according to "the intensity of mechanical

force" and "direction in space." In fact, it will come to be a matter of indifference whether we speak of a thought as good or rectilinear, as false or elliptical. Bain and Tyndall assert that matter is "a double-faced unity," having "two sets of properties, or two sides, the physical and the mental." They form "one substance, and the only substance which exists in the universe." It would seem not at all unreasonable to infer that the fundamental qualities of matter must inhere in mind. Mr. Cook's rejoinder was not wanting in aptness, "When Cæsar saw Brutus stab, and muffled up his face, at the foot of Pompey's statue, was his grief round or square or triangular? When Newton conceived the idea that gravitation is a universal law, was that thought red or brown or violet? When Lincoln, by a stroke of his pen, manumitted four million slaves, was his choice hexagonal or octagonal? Does the act of imagination in Shakespeare weigh an ounce or a pound?" Professor Bain himself says that "mental states and bodily states cannot be compared." Mr. Cook seems right in pressing against him and the theory, with all his force, the old proposition, "Two irreconcilably antagonistic sets of attributes must belong to two substances." Half the brain may be taken away without impairing the operation of the mind. Herman Lotze has said, "Exceptionally wide in the universe is the extent, entirely subordinate is the mission of mechanism." Mr. Spencer's language seems to commit him to a modified type of materialism. "Various classes of facts unite to prove that the law of metamorphosis which holds among the physical forces holds equally between them and the mental forces. Those modes of the unknowable which we call motion, heat, light, chemical affinity, etc., are alike transformable into each other, and into those modes of the unknowable which we distinguish as sensation, emotion, thought; these in their turn being directly or indirectly re-transformable into the original shapes. That no idea or feeling arises save as the result of some physical force expended in producing it, is fast becoming a commonplace of science." Taken in connection with his whole discussion, this is not quite as bad as it seems. The knowable is an ever-varying mode of the unknowable. Absolute force is the correlate of all force. Persistence of force is seen in transit from coarse to refined, from material to

mental. He seems to keep within the limits of a necessary correlation without assuming causation on the part of matter. His position is, "Whatever be the kind of emotion, there is a manifest relation between its amount and the amount of muscular action induced." By this he proposes to stand or fall. In maintaining this he unwarily forms materialistic alliances. That which otherwise expended, crushes or fractures coarser pieces of matter, generates vibrations, causes chemical combinations, produces in us modes of consciousness, thoughts, mental phenomena. Sensations increase the actions of the heart; strong emotion registers itself in the muscles of the face, the body, the limbs. This may all be conceded by the plain man, who also knows that there have been times when his body had almost nothing to do with certain mental states, and that there have been other times when the mind, by its own self-determination, has produced a powerful influence on the body. Upon the testimony of his consciousness he postulates the independent existence of the two, denies a universal correlation, and rejects as a palpable absurdity the assumption that mind and matter are interchangeable modes of one and the same substance. Dr. McCosh's illustration seems not inapposite: "A man standing by a stream pushes a big stone in the water aside, and the stream flows a little more rapidly for a minute or two, but he has not therefore added to the quantity of water. Just as little does the mental action, reasoning, or feeling add to or diminish the amount of physical force in the cerebro-spinal mass. When a tree dies it carries to the ground not only the particles of matter which composed it, but the forces in the tree, to add to the forces in the ground. It is the same with the body of a brute or of man. When it is buried it carries into the grave with it all the physical forces; but were there any new physical forces added to the earth when Plato, Milton, Bacon, or Newton died?"

One of Mr. Spencer's most able and devoted disciples has attacked the materialistic position with great vigor and success. Mr. John Fiske, with impartiality and penetration, has applied a very keen analysis to the assumptions which make mind a mere function of matter. "Does the motion produce feeling in the same sense that heat produces light? Does a given quantity of

motion disappear to be replaced by an equivalent quantity of feeling? By no means. The nerve-motion in disappearing is simply distributed into other nerve-motions in various parts of the body; and these other nerve-motions in their turn become variously metamorphosed into motions of contraction in muscles, motion of secretion in glands, motion of assimilation in tissues generally, or in yet other nerve-motions. If the law of the correlation of forces is to be applied at all to the physical processes which go on within the living organism, we are of necessity bound to render our whole account in terms of motion which can be quantitively measured. Once admit into the circle of metamorphosis some element, such as feeling, that does not allow of quantitive measurement, and the correlation can be no longer established; we are landed at once in absurdity and contradiction. So far as the correlation of force has anything to do with it, the entire circle of transmutation from the lowest physico-chemical motion all the way up to the highest nerve-motion must be described in physical terms and no account whatever can be taken of any such thing as feeling or consciousness." Sully has forcibly said: "There is a great deal of loose psychological thinking abroad just now under the guise of 'physiological' psychology. It is supposed that to name the nervous accompaniments or conditions of a mental phenomenon is to explain it. No sound psychology is possible which does not keep in view this fundamental disparity of the physical and the psychical and the consequent limits of the physiological explanation of mental facts." The materialist has not answered the plain man's question. Is its trange that this same plain man should find satisfaction in repeating to himself the pertinent words of wit: What is Matter? Never Mind. What is Mind? No Matter.

And now he propounds the question to which all the others have led: What is man? If matter is eternal and self-potential, if force is simply an attribute of matter, or if matter and force are the self-contained, self-potential dualism of the universe, making the conception of an immaterial creating power an absurdity, "if inorganic and organic forms are the results of accidental combinations" of these, if life is only an abstraction

or property of matter, and mind only a function of matter, then man may be considered as only a material mechanism, a mere hap-hazard sequence, manifesting no wisdom in design, and no purpose to attain. But if there is wisdom anywhere it is manifest in the presence and structure of man. If intelligence ever revealed plan and force moving out to purpose it is visible in man. Biology traces out an ever-unfolding prophecy of man. Embryology shows that he repeats "in outline the history of his animal ancestors." All nature beholds him in the prospect. He holds all nature in retrospect. For him everything has become subordinate to the nervous system. His physical structure has neither coat-of-mail nor massiveness. Mind is his panoply and mind is his power. With the predominance of his mind, his physical development for the most part ceased. As we look on men anatomatically we see them standing not far from the apes. As we look on them mentally we find ourselves repeating the words of the old Hebrew poet: "I have said, ye are gods, and all of you are the children of the Most High."

One of the sublimest mysteries of man is his consciousness. Descartes' great dictum was a powerful utterance of reason—"Cogito ergo sum." How finely Tennyson outlines the development of consciousness:

> The baby, new to earth and sky,
> What time his tender palm is pressed
> Against the circle of the breast,
> Has never thought that this is I.
>
> But as he grows he gathers much,
> And learns the use of I and Me,
> And finds I am not what I see,
> And other than the things I touch;
>
> So rounds he to a separate mind,
> From whence clear memory may begin,
> As through the frame that binds him in,
> His isolation grows defined.

Consciousness is indeed "the light of all our seeing." The mind becomes conscious of an object known, of itself and of its knowledge. Now let us see what Agnosticism with a materialistic bias has to say concerning this attribute of man. Mr. Spencer, for instance, separates himself from his consciousness

completely, or rather, seems to think that he does. His method amuses us. He has his eye on the chains of consciousness and soon sees them differentiate into an ego and a non-ego. Independent aggregates of consciousness manipulated by the "principle of continuity" "moulding and modifying by some unknown energy" become either ego or non-ego. The demonstration is too fanciful to charm a lover of Euclid and too abstruse altogether to enlighten the plain man. As we are told that "feelings are the subjective side of nervous changes" only, as we listen to the talk about "the gush of molecular motion liberated from an imperfectly organized ganglion of early life not having adequate channels of escape in the commisural and efferent fibres," emotions varying with "the quantity and quality of the blood" so that grief or joy is only a matter of corpuscle, as we read about "tracts of consciousness formed of feelings that are centrally initiated" and also of those "peripherally initiated," we feel no surprise at last on being informed that ideas are the subjective aspects of ganglionic plexuses and diffused discharges of muscular excitement, and that trains of thought arise from ideas becoming "detached" from actions as "impressions produced by things and relations reverberate through the nervous system." This, then, is the transcendent revelation which comes to us as we bend low before the shrine of Agnosticism! And to be a synthetic philosopher is to revel in this chaos of conceit!

Systems of materialism or philosophic systems with materialistic bias necessarily antagonize the doctrine of the freedom of the will. When we look no farther than the realm of biology for the explanation of the genesis and composition of mind, we shall be soon satisfied with any hypothesis which makes the will simply the "unbalanced surplus of feeling." "What is called will comes into existence through the increasing complexity and imperfect coherence of automatic actions. Will is nothing but the general name given to the special feeling that gains supremacy. The unbalanced surplus of feeling of whatever kind which for the moment constitutes the will is the antecedent of the muscular sensation, and co-exists with it while it lasts. A force evolved in the nervous centres produces motions along channels which offer the least resistance. A volition is

an incipient discharge along a line which previous experiences have rendered a line of least resistance. The passing a volition into action is simply the completion of a discharge." (See "Synthetic Philosophy, First Principles," sec. 79; also "Principles of Psychology," secs. 217–20 and 351.) The will is then a result of complexity and imperfection. Whether for any length of time it is a sensation, a state of consciousness, a faculty, a feeling, or a fancy, no one can tell. Of one thing we are sure. It soon becomes a vanishing point. To speak of the freedom of the will is thus as absurd as to speak of the freedom of a headache! All actions are determined by the psychical connections produced by experience either in the individual or in the general antecedent life, whose accumulated results are organized in his constitution! A volition is an incipient discharge along a line of least resistance! It is impossible to calculate the harm which would ensue upon the general acceptance of such hypotheses. A cruel fatalism would soon wind its folds around human effort and every vestige of moral responsibility would utterly disappear in the black horror of hopelessness enveloping society. Fortunately, however, such theories obtain over such a limited area of acceptance that their evil influence is comparatively slight. Nevertheless it is deplorable that the influence is still sufficient to warp the judgment of such observers as Mr. Spencer, who virtually confesses his inability to recognize in the evolutions and revolutions of human history the great power of the human will.

Having reduced life to mechanism, the testimony of consciousness to a vague uncertainty, the freedom of the will to an impotent absurdity, the agnostic proposes to dismiss God from the universe and bury the faith of man in the grave of contempt. Ideas of deity, he tells us, are not innate (Spencer: "Principles of Sociology," section 203). Behind a supernatural conception there has ever been a human personality. The words for God are in various languages simply descriptive. Deity is only an equivalent of superiority. Father and God are interchangeable because a father was regarded as a begetter, that is, a causer of new beings, and, therefore, in general, a causer. The root of every religion is in ancestor-worship. Man is not by constitu-

tion a religious being. Uneducated deaf mutes have no conception of the existence of a Supreme Being as Creator and Ruler of the universe. Among various savage tribes religious ideas do not exist. How do they ever originate? From experience in sleep and observations of swoon, apoplexy, epilepsy, etc. Thus arises the idea of a "double." At death the other self goes away. It will probably return as it did from sleep and swoon before. It therefore receives ministrations from the living. Grave-heaps develop into altars; grave-sheds into cathedrals; food for ghosts into sacrifice and atonement. All gods arise from apotheosis! Thus the agnostic has reversed the creed of the Christian, and instead of saying God made man, declares that man made God! We find no fault with exposure of the fact that religion has been identified with fetich degradation and revolting debauchery, and that in her name have been wrought the most cruel deeds of violence. But one is amazed at the confusion of thought manifest in attempting to trace the evolution of a pure Christianity from these abhorrent forces. Mr. Spencer actually represents the loftiest Christian worship as an evolution from mediæval saint-worship. Thus does a synthetic philosopher make the eleventh century of our era precede the first! Such misarrangements of facts make his sociology sometimes a veritable *fata morgana.* It would be a reflection on Mr. Spencer's acuteness of intellect to take him seriously in his attempt to base an argument on the abnormal faculties of deaf mutes. What would be thought of an argument against philosophy based on such nescience? Mr. Spencer seems to think monogamy has for its basis an innate idea. He did not get support for that conception from either a deaf mute or a savage. Besides, there is absolutely no proof that the primitive man was a savage in the common usage of that term. "That he was unlearned, uncivilized, is one thing. That he was a fool, that he was not much above the brute, is an unverified assertion" ("The Grounds of Theistic and Christian Belief," G. P. Fisher, D.D.). Mr. Spencer himself concedes that the savage of to-day may be an instance of retrogressive rather than progressive evolution. How then can we get any evidence from him as to the ideas of the primitive man? But, as a question of fact, are

there any peoples to-day so degraded as to be without religion? Lubbock collected a large amount of evidence, and said, "Such people could be found." Quaterfages and Roskoff sifted all his evidence and clearly proved the contrary. Peschel, in his "Races of Man," goes over the ground very carefully and conclusively demonstrates that no nation has been found destitute of religious emotions and ideas. It is an impressive fact that brutality has never completely emptied the mind of religious conception. But a more striking fact is that the agnostic cannot rest in these negations. The very writer who represents all religion as founded on a dream, tells us that religion expresses the invisible side of the same fact of which science expresses the visible side. He anticipates a reconciliation between religion and science, as though pure religion and pure science were not reconciled! Environment and consciousness compel us to accept, he tells us, the hypothesis of an infinite and absolute first cause. He speaks of this power as the "Unknowable." He declares that all knowledge of it is forbidden by the very nature of thought. Nevertheless he professes to know something quite definite about the "Unknowable." He says: "It is real; it is infinite; it is absolute; it is causeless; it is the correlative of known force; it is omnipresent; it is involved with phenomena everywhere; it is that about which religion may be properly concerned." In the course of his impressive argument on "The Self-Revelation of God," Dr. Harris says: "The very fact that the absolute manifests itself in the universe implies that it is not unknowable in itself. It is unknowable in so far as it has not revealed itself, or as our minds are not great enough to take in all the facts and significance of the revelation. If the Absolute Being is manifested in all the ongoing of the universe, then with every enlargement of knowledge and capacity the finite mind, so long as it exists, may continue to advance in the knowledge of God." "Agnosticism, if it is not allowed to contradict and nullify itself by ascribing power and other attributes to the so-called Unknowable, must contradict itself and nullify all knowledge, by affirming the existence of a being of which it knows nothing, a continuous revelation of that being which reveals nothing, and the existence of a being which is annulled if we

ascribe to it any essential quality of a being." The tendency of this school to-day is toward theism. Mr. Fiske, in his "Cosmic Philosophy," says of the absolute, "There exists a power to which no limit in time or space is conceivable, of which all phenomena, as presented in consciousness, are manifestations, but which we can only know through these manifestations. The term Unknowable I have carefully refrained from using; the total elimination of anthropomorphism from the idea of God abolishes the idea itself. The glorious consummation toward which all organic evolution is tending is the production of the highest and most perfect psychical life. Always bearing in mind the symbolic character of the words, we may say 'God is Spirit.'" But turn from the disciple to the Master. Hear Mr. Spencer: "Amid the mysteries which become the more mysterious, the more they are thought about, there will remain the one absolute certainty that he is in the presence of an Infinite and Eternal Energy, from which all things proceed" (*Nineteenth Century*, January, 1884). Criticised, he wrote a few months later: "Our consciousness of the absolute is not negative, but positive, and is the one indestructible element of consciousness which persists at all times under all circumstances, and cannot cease until consciousness ceases" (*Ibid.*, July, 1884). Defending his definition of the "Unknowable" as "an Infinite and Eternal Energy, from which all things proceed," he says he originally wrote "an Infinite and Eternal Energy by which all things are created and sustained," and that, though to prevent misunderstanding, he changed the last clause in correcting the proof, "the words did not express more than I meant." "This necessity we are under, to think of external energy in terms of internal energy, gives rather a spiritualistic than a materialistic aspect to the universe." All unconsciously to themselves, these investigators have come under the influence of a principle enunciated with telling emphasis and distinctness by an inspired writer many centuries ago. "By faith we understand that the worlds have been framed by the Word of God, so that what is seen hath not been made out of things which do appear" (Heb. xi., 3). This is the irresistible tendency of the mind holding itself before the problems of the Infinite. Oh! what a relief to turn from the dead matter, the blind force

and the irrational automaton of the materialist, the shadowy elusive unknown of the agnostic, the deceiving phantoms of the pantheist, and step forth into the realm of pure theism and Christianity, where the thought of God invigorates and inspires all consciousness, and where actual communion with God, strengthening the soul, provides its own indubitable evidence. With this exaltation of consciousness by Christian theism there is the realization of the largest freedom. Agnosticism with Spencer as its prophet and pantheism with Spinoza as its interpreter deny to man the freedom of his will; but Christian theism disenthralls his will. The more any man knows God the freer he becomes.

Now, as our friend, the plain man, recalls the answers of materialism and agnosticism, he notes down a few suggestive facts.

First, he notices that after centuries of speculation, the materialist of to-day, with all the skill and ingenuity that belongs to him as the author of weird hypotheses, with all the data of scientific research, and with all the light of advancing civilization beaming full upon him, has gone little, if any, way ahead of the position occupied by Leucippus and Democritus thousands of years ago.

Secondly, he notices that agnosticism has a decidedly materialistic trend. He hears Huxley saying, "Thought is the expression of molecular change in that matter of life which is the source of our other vital phenomena." He hears him say again, "With a view to the progress of science, the materialistic terminology is in every way to be preferred"; and again, "There can be but little doubt that the further science advances the more extensively and consistently will all the phenomena of nature be represented by materialistic formulæ and symbols." He has seen Mr. Spencer, seemingly, entirely at home in the camp of the materialists.

But, thirdly, he notices, on the part of agnosticism, a shrinking dread of materialism. Mr. Huxley says: "The materialistic position that there is nothing in the world but matter, force and necessity, is as utterly devoid of justification as the most baseless of theological dogmas." Mr. Spencer also seems unwilling

to be known as a materialist. Why? Because reason protests against it. Because, as Dr. Harris has said, "Materialism is a congeries of contradictions." A pure rationalism cannot tolerate it.

Fourthly, he suspects that the maintenance of materialistic assumptions, hypotheses, and formulæ as well as all antagonisms to a rational conception of Absolute Being, Divine Personality and Government, may be due to bias and a subtle pride of intellect.

Then, too, men become infatuated with their own ingenuity. The fumes arising from the brew of their own speculation overpower them. It is a great thing to have pushed generalization so far as to have come upon the law of continuity. Yet it is possible to make a fetich of the law of continuity. Every real law, every real discovery is in some sense also a revelation. The scientist and philosopher have simply come upon a manifestation of the Divine Mind. Neither scientist nor philosopher has made the laws he expounds. He has not always wisely prophesied from them. There is more light and truth to break out. Speculation has its office. But the true scientific attitude must be that of docile learner and faithful interpreter rather than that of hot and arrogant controversialist. A science too near-sighted may miss the greatest glory of nature and history.

Fifthly, and finally, the plain man finds himself asking what is the practical effect of walking by the flickering glimmer of speculation rather than the steady, white light of revelation? The plain man finds himself wrought into the network of society. Nothing human can be certainly foreign to him. What is his privilege, what his obligation, what his sphere of endeavor? What shall he do in the midst of these social contacts, forces and resultants? He notices among the institutions of men, one which claims divine origin. Shall he turn to the Agnostic for an explanation? If so, he is told that the religious fabric is based on absurdity, and covered with the dirty drapery of ignorance, barbarism and despotism. But consider what marvels Christianity has wrought. Since Mr. Spencer began to tell us that the progress of man from barbarism to civilization must of necessity be ages upon ages long on the line of least resistance

whole tribes of savages have laid aside their predatory brutalities and been transformed into communities of noble men and women with the munitions and satisfactions of Christian civilization.

There is no moral productiveness in the ethical systems of agnosticism. Flaccid character cannot thereby be moulded into strength and heroism. There is no inspiration to greatest deeds. The perplexed inquirer will not find his vision cleared by so-called ethics which make a hound as truly moral as a Socrates, and point to the dissipation of obligation as the culminating glory of the perfect morality. One recalls the strange melange in Mr. Spencer's "Social Statics," where a withered shrub, a lame hen, a sore-headed bear in a menagerie, an unhappy bachelor, a heart-broken mother sorrowing over a lost child, the home-sick emigrant, the cannibal Carib, fighting nations, convicted felons, corrupt politicians, tricky tradesmen, and jealous dames, with their drawing-room scandals, are all indiscriminately herded under one great generalization. Use your liberty. Eat the fungus; if it shall kill you, it is a toadstool; if it shall not, it is a mushroom. Society is a great slot-machine from which, after many jinglings, creakings, and grindings, the "ideal man" shall yet draw out "perfection," as a result of the "dream" dropped in millenniums ago by the half-human predatory mammal. In unfolding the scheme of ethics, it is doubtless a great thing to loose all the bonds of "obligation," and send men, or let them be swept by the swirl of the evolution current, to the devil! The unfittest disappear! Hear the conclusion of the whole matter. Behold the light flashing out at last from evolution and industrialism, the two cores of synthetic philosophy, with all their windings of argument and theory! Cultivate egoism, qualified cautiously by altruism. Is a system scientific which paralyzes a personal hope? Is it scientific, is it logical, thus to ignore or discourage the irrepressible yearnings of humanity? Is it synthetically philosophic to tell men they are zoophytes, that all their purpose, endeavor, sacrifice and death simply serve to build a vast coral skeleton which shall some day rise above the troubled deeps and changing tides of storm-tossed centuries to form an isle of content for the happy-hearted peoples of a golden future?

Never did the music of the good old Scriptures sound in our ears more like a chant of inspiration. "Trust in the Lord, and do good; dwell in the land, and follow after faithfulness. Delight thyself also in the Lord; and H shall give thee the desires of thine heart. Commit thy way unto the Lord; Trust also in Him; and He shall bring it to pass. And He shall make thy righteousness to go forth as the light, and thy judgment as the noonday" (Psalm xxxvii., 3–6). "God will render to every man according to his works: to them that by patience in well-doing seek for glory and honor and incorruption, eternal life" (Romans ii., 7).

As the plain man stands here in the audience chamber with Leibnitz, the scene changes before his Faith. Yes, Faith. For the sneer of the skeptic has lost its power over him. At last, reverent Imagination, coming near to Faith, looks and listens. The door of the cabinet opens. The voices of philosophers, scientists, and speculators are quieted. The audience chamber becomes a holy place. By the rent veil of the Holy of Holies stands the High Priest of the Universe. "Without Him was not anything made that was made." He breaks the silence. Hear Him: "To this end am I come into the world that I should bear witness unto the truth. Everyone that is of the truth heareth My voice. God is a spirit; and they that worship Him must worship Him in spirit and truth." The plain man at last is satisfied!

DOUBT AND DOUBTERS.

By the Rev. J. Q. Adams, of San Francisco, Cal.

THIS is a questioning age. An interrogation point is put at the end of everything. Lowell, in the "Cathedral," calls it, "This age that blots out life with question marks." Possibly it will suffer in comparison with some that have gone before it as a creative age, though it certainly thinks well of itself in this regard. But it is superior to some others as an age of inquiry, an age of criticism, an age of doubt. Unbelief is in the air. It gossips, holds conventions, writes books, edits newspapers and reviews, teaches school, lectures, and sometimes even preaches. In short, it uses all the appliances of the Nineteenth century to propagate itself. And is not this strange, that *unbelief* should have a propaganda? that it should be so anxious to tell what it does not know nor believe?

We are digging down now to see what sort of stone was put in the foundation, giving little heed to the building, or whether the whole structure falls in ruins and buries us while we are at work. We are more anxious to tear down than to build up. It is easier work. A tramp can do the one, it takes a master-builder for the other. Almost anyone, in these days of art decoration, feels competent to criticise a Raphael, but who dare claim to be his successor? If, as Emerson has said, the poorest poem ever written is better than the best criticism ever passed upon it, then there is certainly something higher and better than being a critic.

Such inquiry, criticism, doubt, may be necessary. By no means do I endorse the opinion of some one who has said that doubt is the devil of the Nineteenth century. There are some things much worse than doubting, *if it be doubting*. The rubbish that is liable to gather around all thinking must be cleared away.

The final result of inquiry need not be feared. Truth must be the outcome. Whatever its results to individual souls may be, in the end the truth will prevail. "For we can do nothing against the truth, but for the truth." Let us gladly welcome all the truth that comes out of such discussions. But whether or not it is the most healthful, life-giving atmosphere to breathe may be legitimately questioned. As things now are, every breeze carries hither and thither the malaria or the oxygen of doubt; for that there is a poisonous as well as a healthful doubt cannot be doubted.

But, after all, this state of things is nothing new. Other ages have witnessed eager search and questioning; and it is because we have entered into their labors that the results to-day are better than those of yesterday. Not alone when the Master was about to leave His disciples have "some doubted," and this age is not solitary among the ages, either because of the fact that doubt is so prevalent or because of the superior discernment of its doubters.

Some distinctions need to be made in this matter. There are *doubting* and DOUBTING. There is *dishonest* as well as HONEST doubt—using these terms not as applying to the persons, but to the moral and intellectual act. Not all the coin in circulation is genuine, though many men act as if it were. The words, "In God we trust," often appear in strange company. Some people seem to think that if you can only label any opinion in morals or religion, "This is a doubt," it is therefore a sure sign that what it labels is the genuine article; as if printing, "This is a cow," under the child's rude drawing, made it therefore a cow. Not much thought is necessary to show that this is far from the truth.

Webster defines *doubt* thus: "A fluctuation of mind arising from defect of knowledge or evidence; uncertainty of mind; unsettled state of opinion; suspense; hesitation." You will at once see that a doubter is not necessarily an unbeliever, though in popular language these words are often confused. An unbeliever has already decided; a doubter is still undecided. The former may have no good reason for his unbelief; the latter must have a sufficient reason for his doubt.

Now, this "fluctuation," "uncertainty," "suspense," "hesitation," may arise from an unnecessary defect of knowledge, from a neglect to examine and weigh the evidence carefully. In fact, there is often in such cases a total disregard of the evidence, and but little, if any, effort to remedy the defect of knowledge. It is sometimes the ignorance of the man at the wheel, and not any error of the chart by which he sails, that explains the drifting of the vessel upon the rocks. When Galileo announced the discovery of the satellites of Jupiter, the scientific world refused to believe. One astronomer, Clavius, said that to see them one must have a telescope that would make them. He subsequently changed his mind, however. Another refused to look, and died in his unbelief; or rather, to use the modern phrase, he died a doubter. Galileo sarcastically said, "I hope that he saw them while on his way to Heaven." Who was to blame for his defect of knowledge?

Though such a state of mind is called, to-day, doubt, it does not deserve the name. It is rather a prejudice, in the proper meaning of the word. It is a pre-judgment, without any investigation. This is the character of much of the current doubt regarding the Bible and Christianity. The mind is made up, an opinion is formed, a decision is rendered, not because the evidence is at fault, nor the knowledge obtainable on the other side defective, for there has been no proper examination of either. If asked to give a reason for this state of mind, the person questioned could not do it. And doubt, be it remembered, must justify itself; it must be able to give a reason for its existence. "Men miss truth," says Whateley, "more often from their indifference about it than from intellectual incapacity," or, we might add, from defective evidence. And indifference to the truth is no adequate justification of doubting.

Close observation is not needed for one to discover that much of what passes current as doubt is rather pre-judgment. It is counterfeit coin, but it deceives many. It vitiates, poisons much of the air we breathe. It brings honest doubt into discredit. It creates suspicion in the minds of many that the genuine article is unknown. "The first step to self-knowledge," says Julius Hare, "is self-distrust. Nor can we attain to any kind of knowl-

edge except by a like process. We must fall on our knees at the threshold, or we shall not gain entrance into the temple." But this so-called doubting was never known to fall on its knees, nor to distrust itself. Yet it is the counterfeit that we often hear lauded as the superlative virtue of the day.

Much of it is due to *indolence*. Gold must ordinarily be worked for; sand and dirt may be gathered in the street. *Fashion* accounts for much of it, for here, as elsewhere, she is a tyrant. She who rules even in regard to the cerements of the dead and the monuments that mark their resting place, makes her voice heard in the world of thought. Just now it is fashionable to doubt, to criticise, to sneer. "Every one wishes to have truth on his side," says Whateley, "but it is not every one that sincerely wishes to be on the side of truth." And these two are quite different.

"When I look around upon boys or men," says Thomas Arnold (Life II., 23), "there seems to me to be some one point or quality which distinguishes really noble persons from ordinary ones: it is not religious feeling—it is not honesty or kindness—but it seems to me to be moral thoughtfulness." But where this is lacking, what can be expected but that kind of doubting which is "the amusement of frivolous minds"? Certainly not that which "is the unutterable sorrow of deeper souls."

Another cause of this sort of doubting is the idea so common that it indicates superior wisdom and liberality. Others may think it due to our indolence, indifference, or hostility; we think it due to superior discernment. We doubt the faith of our fathers, the faith of the Church, or the Bible, because we know so much. But doubt is due to lack of knowledge, and not to its presence. And such doubt forgets that we must start with certainty somewhere, but proposes to saw the limb off while sitting on it. It must doubt everything except itself, but is radically inconsistent. Such a doubter ought to doubt whether after all he doubts; doubt whether there be any "he" to doubt; doubt whether there be anything to be doubted. "A thorough Agnostic ought not to be sure that he is an Agnostic; he should not, in fact, be too confident that he is himself, or that he is at all."

Reverent, rational inquiry into the foundation of our faith is possible. Without ceasing to have convictions we may examine, amend, reject, approve. It is not necessary to tear down the house in order to examine the foundation. We may not be able to build it again if we do. There are some certainties even for this restless age. There are some conclusions, with ages of thought back of them, that may be considered settled, and that man is a fool who thinks himself big enough to reject all these and use in his building only his own spider-webs.

Discussion with this kind of doubting is of no avail. Arguments are useless. Evidence is of no importance, except that which tells for their side. The truth is a secondary matter. The balance of probabilities is of no consequence. They are very much like those persons who demonstrated the utter impossibility of laying an electric wire on the ocean's bed and who, when England and America joined hands, because it was done, still asserted with vehemence that it could not be done and had not been. That was doubt gone mad.

Such doubt is anything but honest. It is moral and intellectual poison to breathe it. It dwarfs the mind, as certainly as it does the spiritual nature, and is due to anything else than superior wisdom. The character formed by it is much like that described in a recent newspaper editorial: "We could never muster much respect for those non-committal souls, so nicely balanced, it may be, that they can see no great difference between God and the devil, who politely wish to be excused from taking sides in any war between good and evil. There are such characters now in the world, and some of them aspire to be leaders of popular thought, who are so cultured and philosophical that they are equally ready to cry, good Lord or good devil." The result, however, is that they generally cry "good devil," and then call the rest of us bigots if we do not join them. The creed of such doubters has been admirably summarized as follows: "Article I., Ego; Article II., Nego." If there were not so much of the first there would be much less of the second. But nothing is proved by this denial, save the diseased moral nature of the denier. It is no more disproof of moral and spiritual certainties than sickness of body is disproof that there is health, or the

blinded eye that the sun shines. They have ears, but they hear not; eyes have they, but they see not.

The counterfeit, however, has detained us long enough. Let us turn now to the genuine, and look at *honest doubting*.

The contrast has been well stated by Verney: "Doubt is the amusement of frivolous minds, but it is the unutterable sorrow of deeper souls." What, then, is the main characteristic of this "unutterable sorrow" that separates it from this "amusement frivolous minds," the demon of the nineteenth century which has been described?

Honest doubt comes from a sincere desire to know the truth; and no doubting is honest which is not marked by this paramount desire. The only wish is to know the truth; but there is a defect in present knowledge or evidence that compels one to doubt, to hesitate, to be uncertain with reference to what the truth in that matter is. Thus the honest doubter, as another has said, "doubts not because he chooses to, but because he cannot help it." I doubt, for example, the being of God. Why? Because I have thoroughly examined and accurately weighed all the evidence for it; considered the probabilities *pro* and *con*, and all without prejudice and with a single desire to know the truth. Then, and not till then, if the evidence be insufficient and the probabilities against greater, can I continue to claim to be an honest doubter of the existence of God. How many of those who deny God, even of those who boast of it before audiences at $1 per head, have done this work, think you? Honest doubting may be a healthful state, but it is not a satisfactory one. Such a doubter does not rest satisfied with merely doubting. He is far more anxious to possess the truth than he is to keep his doubts. For the truth he will search as for hid treasures. He will dig for it with tireless energy. No effort will be withheld, no sacrifice will be too great, if only he may win the truth, and when it is found, he rejoiceth as one that findeth great spoil. His doubts now are gone, and in their place has come the priceless truth. Henceforth it will cling to him with a deathless grip, and he will understand something of the meaning of the beautiful as well as the wise words of Lord Bacon: "Truth, which only doth judge itself, teacheth that the inquiry of truth,

which is the love-making or wooing of it—the knowledge of truth which is the presence of it—and the belief of the truth which is the enjoying of it—is the sovereign good of human nature."

He will also be enabled to take to himself other words of the same great writer: "For my own part at least, in obedience to the everlasting love of truth, I have committed myself to the uncertainties and difficulties and solitudes of the ways, and relying on the divine assistance have upheld my mind both against the shocks and embattled ranks of opinion, and against my own private and inward hesitations and scruples, and against the fogs and clouds of nature, and the phantoms flitting about on every side."

With such a purpose a man will come to the truth, and, as fast as he does it, will give the highest proof that he has honestly doubted, by embracing the truth and following where it leads. "Just as soon as there appears more probability for than against, faith is under bonds both to reason and conscience to appear in such degree to decide the conduct."

Doubt of itself is sterile. "Doubt and live" is an impossible evangel. Not so "believe and live." Therefore it is truth in order to action. It is not truth alone as the final end, for the knowledge of truth carries with it the obligation to do the truth. Over against every truth lies a duty. Only he that doeth the truth cometh to the light. If the light is to grow brighter, we must follow it now, however dim it may be. If increasing knowledge of the truth is our desired guerdon, obedience to the truth already known is the only way of attaining it. Hear Carlyle in some of his better moments, as he speaks in "Sartor Resartus": "One circumstance I note, after all the nameless woe that Inquiry, which for me, what it is not always, was genuine Love of the Truth, had wrought me, I nevertheless still love Truth, and would bate no jot of my allegiance to her. Truth, I cried, though the heavens crush me for following her; no falsehood, though the whole celestial lubber-land were the price of the apostasy. In conduct it was the same. Had a divine messenger from the clouds, or miraculous handwriting on the wall, convincingly proclaimed to me 'This thou shalt do,' with what

passionate readiness, as I often thought, would I have done it, had it been leaping into the infernal fire."

And again: "Most true it is, as the wise man teaches us, that 'doubt of any sort cannot be removed except by action.' On which ground, too, let him who gropes painfully in darkness or uncertain light, and prays vehemently that the dawn may ripen into day, lay this other precept well to heart, which to me was of invaluable service: 'Do the duty which lies nearest thee.' Thy second duty will already have become clearer." In brief, much must be made, in solving doubts, of the conduct of life.

Indulgence is asked while another quotation is given from one who cannot be accused of any theological bias and whose words many have received as a new Gospel. "This, then," says Mr. Emerson, "is the right ground of the skeptic—this of consideration, of self-containing, not at all of unbelief, not at all of universal denying, nor of universal doubting—doubting even that he doubts; least of all, of scoffing and profligate jeering at all that is stable and good. These are no more his moods than are those of religion and philosophy. He is the considerer, the prudent, taking in sail, counting stock, husbanding his means, believing that a man has too many enemies than that he can afford to be his own; that we cannot give ourselves too many advantages in this unequal conflict, with powers so vast and unweariable ranged on one side, and this little conceited popinjay that a man is, bobbing up and down with every danger on the other. It is a position taken up for better defence, as of more safety, and one that can be maintained; and it is one of more opportunity and range; as when we build a house, the rule is, to set it not too high nor too low, under the wind, but out of the dirt."

Would that these wise words might be pondered by every one who has been caught or tempted by the false lights of to-day, many of whom seem to think that the coarser, less reverent, more flippant, less reasonable, and more scoffing and universal, their unbelief is, the better it is, and the more honest they are. Let it be remembered that the right ground of the honest doubter is not universal denying nor doubting, least of all scoffing and profligate jeering. Would to God that every man might realize that in these matters he cannot give himself too many

advantages, for on one side are powers vast and unweariable, and on the other the little conceited popinjay that a man is.

We often hear the words of the laureate poet quoted as if creeds were worthless and all doubt was honest. But the poet is a truer philosopher than this; so listen to his words and see how plainly he outlines the honest doubter:

"You tell me, doubt is devil-born."
I know not; one indeed I knew
In many a subtle question versed,
Who touched a jarring lyre at first,
But ever strove to make it true.

Perplext in faith, but pure in deeds,
At last he beat his music out.
There lives more faith in honest doubt,
Believe me, than in half the creeds.

He fought his doubts, and gathered strength,
He would not make his judgment blind;
He faced the spectres of the mind,
And laid them; thus he came at length

To find a stronger faith his own;
And Power was with him in the right,
Which makes the darkness and the light,
And dwells not in the light alone,

But in the darkness and the cloud,
As over Sinai's peaks of old,
While Israel made their gods of gold,
Altho' the trumpet blew so loud.

In the light of these words, how much honesty has he who, instead of fighting *against his doubts*, fights *for them*, and seeks to undermine the faith of others? Such doubt is devil-born, and its offspring is like in kind.

Possibly some one may be ready to say, "If all this is true, then not every one can be an honest doubter." And so saying, he would speak the truth. It does take an honest, earnest, sincere, thoughtful man to be an honest doubter. He must be able to give a reason for his doubt, or else give it up. He must seek in every possible way to remedy the defect of knowledge or evidence, and when the light comes, however faint it may be, his heart and head must follow it even unto death.

There are, there have been, such noble souls among the high

and low, who, through the deepest darkness of doubt, have been led into the light of triumphing faith. Such a man was the celebrated English essayist, John Foster. Much alone, disliking society, he was never idle nor thoughtless. He wore a path in the solid pavement of his church at Chichester by his nightly vigils, wrestling with his doubts. He struggled for hours in prayer for light; he besought the dead to speak to him of the unseen; persistently did he cry out that he might know the truth in regard to God, and eternity, and immortality. Out of such deep experiences the light came, and he fashioned those great thoughts that stirred his generation so mightily, and have been the sheet-anchor to many a soul since under like temptations.

Justice Coleridge, of England, tells us that when Arnold of Rugby was in college he was greatly troubled over some statements in the Thirty-nine Articles. "He opened his mind to a friend, and from him he received the wisest advice, which he had the wisdom to act upon; he was bid to pause in his inquiries, to pray earnestly for help and light from above, and turn himself more strongly than ever to the practical duties of a holy life. He did so, and, through severe trials, was finally blessed with a perfect peace of mind and a settled conviction."

Such a man was Thomas among the disciples. His troubled and doubting heart demanded such proof as could alone satisfy it. But when the proof was given, his doubts all vanished, and his believing heart exclaimed, "My Lord and my God!" His doubts were not crushed, neither were they cherished, for the truth came in their place. This "rationalist among the disciples" steps forth at once into clearer light and firmer knowledge, not because he doubted, but because when seen he yielded to the truth that dissipated his doubts.

We need ever to remember that mysteries surround all thinking. If we wait for all these to be explained, doubt will never end, action will never begin. We see only in enigmas here. The light is not clear, nor yet is it dark. Truth is not all known, neither is it wholly wanting. The earth in which we dwell is not all a plain. Thank God for it. There are mountains and valleys, the stormy ocean and the peaceful lake, the rushing torrent and the waters of quietness, the barren waste and pastures

of tender grass—in and by some of these we may rejoice, find rest, and gain strength; through some of them we must fight our way with tireless energy, disciplined by the conflict; but out of them all enough truth shall come to light our way heavenward, as it grows brighter and brighter unto the perfect day.

It will thus be seen that mere familiarity with current discussions, skill in raising objections and making them appear as formidable as possible, the hearing or the reading of a few coarse, scoffing lectures, all of these do not of themselves make a man an honest doubter, though they may make him a thoughtless unbeliever.

He is certainly to be pitied who decides that he will decide nothing; who doubts God and His Word, and lives as if they were not true, without ever asking whether he himself is true; who is contented without knowing whether he is safe, because he knows not whether he is right; who, amid the storm, can jest and laugh, caring not who is at the helm, heeding not whether the hoarse murmur he hears is the noise of the surf upon the fatal rocks toward which he is surely drifting, or only the freshening breeze that is bringing him into the haven. God pity the soul whose doubts have given him no truer conception than this of life, with its endless possibilities.

MEMORABILIA.

——"Humanity," says Renan, the French skeptic, "as a whole, presents an assemblage of beings low, selfish, superior to the animal only in this, that their selfishness is more premeditated. But in the midst of this uniform vulgarity pillars rise toward Heaven and attest a more noble destiny. Jesus is the highest of these pillars which show to man whence he came and whither he should tend. In Him is condensed all that is good and lofty in our nature."

——Hume, *Essays*, p. 225, 1753 Edition.—"The whole frame of nature bespeaks an intelligent Author, and no rational inquirer can, after serious reflection, suspend his belief a moment with regard to the primary principles of Theism . . . can be so blind as not to discover an intelligence and design in the exquisite

and most stupendous contrivance of the universe ; can be so stupid as not to feel the warmest raptures of worship and adoration upon the contemplation of that intelligent Being so infinitely good and wise."

——" Thy name," says Hooykaas, the Dutch skeptic, apostrophizing Jesus, " shall be the mighty cry of progress in freedom, in truth, in purity—the living symbol of the dignity of man, the epitome of all that is noble, lofty, and holy upon earth."

——Buffon, the great French naturalist, affirmed (*Natural History*) : " Enough has been advanced [in his works] to demonstrate the excellence of our nature and of the immense distance which the Creator has placed between animals and man."

——La Place.—" Assures that a primitive cause has directed the planetary motions." " We are here, again, compelled to acknowledge the effect ; a regular cause. Chance could not alone have given a form nearly circular to the orbit of all planets." " Phenomena so extraordinary are not the effect of regular cause."—*System*, ii., 327, 366.

——John Locke.—" We have a more certain knowledge of the existence of a God than of anything our minds have not immediately discovered to us. . . . We more certainly know that there is a God than that there is anything else without us. When I say we know, I mean there is such a knowledge within our reach which we cannot miss, if we will but apply our minds to that as we do to other inquiries. It is as impossible to conceive that ever bare, incogitative matter should produce a thinking, intelligent being as that nothing should of itself produce matter. Let us suppose any parcel of matter eternal, great or small, we shall find it, in itself, able to produce nothing. For example, let us suppose the matter of the next pebble we meet with eternal, closely united, and the parts firmly at rest together ; if there were no other being in the world, must it not eternally remain so, a dead, inactive lump? Is it possible to conceive it can add motion to itself, being purely matter, or produce anything? Matter, then, by its own strength, cannot produce in itself so much as motion : the motion it has must also be from eternity, or else be produced, and added to matter by some other

being more powerful than matter ; matter, as is evident, having not power to produce motion in itself. But let us suppose motion eternal, too ; yet matter, incogitative matter and motion, whatever changes it might produce of figure and bulk, could never produce thought."—*Knowledge of the Existence of a God, Book IV.*

——Lyell, geologist, *Principles of Geology*, 10th edition, p. 613, affirms science had taught him that "In whatever direction we pursue our researches, whether in time or space, we discover everywhere the clear proofs of a creative intelligence, and of its foresight, wisdom, and power."

——Sir R. Murchison, *Siluria*, p. 483, 4th edition.—"From the effects produced on my mind through the study of those imperishable records, I am indeed led to hope that my leaders will adhere to the views which I, in common with many contemporaries, entertain of the succession of life. For he who looks to a beginning, and traces thenceforward a rise in the scale of being until that period is reached when man appeared upon the earth, must acknowledge in such work repeated manifestations of designs, and unanswerable proofs of the superintendence of a Creator."

MONTHLY MEETINGS.

BY THE SECRETARY.

November, 1891.—The first Tuesday of November being election-day, the monthly meeting was held on Tuesday, the 10th, at 8 P. M., in Hamilton Hall, Columbia College, the President being in the chair. The devotional exercises were led by the Rev. Dr. Wendall Prime, of New York. After the approval of the minutes of the last meeting, the following names of new members were read by the Secretary : Miss Helen Almira Shafer, President of Wellesley College, Wellesley, Mass.; Hjalmar Hjorst Boyesen, Professor Germanic Language and Literature, Columbia College ; Rev. Alfred Coons, Presiding Elder, Kingston District, N. Y. M. E. Conference, Kingston, N. Y.; Charles S. Harrower, D.D., Pastor Central M. E. Church, New York City ; Fletcher Hamlin, D.D., Ph.D., Pastor Duane Street M. E. Church, New York City ; Rev. Alpheus G. Gallahue, N. Y. Conference, Rhinebeck, New York ; Rev. George D. Herron, First Congregational

Church, Burlington, Iowa ; William Fred Vincent Bartlett, D.D., Pastor First Presbyterian Church, Lexington, Ky ; Rev. Joseph Berg Esenwein, B.S., Lebanon, Pa., Manager K. L. of C. E., Editor "Evangelican Worker" ; N. A. R. Dawson, LL.B., Selma, Alabama ; George R. Lighthall, B.C.L., J. P., Montreal, Canada ; Benjamin King Pullen, Memphis, Tenn.; Mrs. J. Gould Weld, New York. Name replaced on roll, Rev. Saertes T. Conrad, B. S B. D., Rhinebeck, N. Y. Letters were read from the Rev. Dr. Henry Van Dyke and Professor J. W. Stimson, expressing their interest in the subject of the lecture, and regretting their inability to be present and take part in the discussion. The regular paper of the evening was by the Rev. J. Hendrik de Vries, of Yonkers, N. Y., whose subject was "Calvinism and Art." After the discussion and a vote of thanks to the lecturer, with a request for a copy of the paper, to be published in CHRISTIAN THOUGHT, the Institute adjourned.

December, 1891.—The regular monthly meeting was held in Columbia College, Tuesday, December 8, at 8 P. M. In the absence of the President, the chair was filled by Prof. Edward J. Hamilton, of New York City. Prayer was offered by the Rev. Dr. Henry Monroe, of New York. The minutes of the last meeting having been approved, the Institute listened to a paper by the Rev. Dr. C. W. Millard, of New York, on "Matter and Man." The subject was discussed by Professors E. J. Hamilton and D. S. Martin. A resolution of thanks was passed, and a request made for a copy of the paper, to be published in CHRISTIAN THOUGHT.

January, 1892.—The President was in the chair on Tuesday evening, January 5, and the Rev. Benjamin B. Tyler, of New York, led the devotional exercises. After the reading and approval of the minutes, the Secretary read the following names of new members :

O. W. Whitaker, A.B., D.D., Bishop of Pennsylvania, Philadelphia ; James M. King, D.D., General Secretary of the National League for Protection of American Institutions, New York ; Isaac Franklin Russell, D.C.L., Professor of Law, University City of New York, Brooklyn ; Rev. J. G. Evans, President Hedding College, Abingdon, Ill.; Robert M. Stratton, A.M.,

D.D., New York ; Morris W. Prince, A.M., S.T.D., Pastor M. E. Church at Stamford, Conn.; Rev. Cyrus F. Wixon, Member of N. Y. Conference of M. E. Church, Newburgh, N. Y.; Henry Augustus Monroe, D.D., Pastor St. Mark's M. E. Church, New York ; J. B. Albrook, M.A., Ph.D., D.D., Presiding Elder M.E. Church, Mt. Vernon, Iowa ; Rev. J. Hendrick DeVries, Yonkers, N. Y.; Rev. David H. Hanaburgh, A.M., Kingston, N. Y.; Mrs. W. M. Rice, New York ; E. L Lentilhon, Supt. Roger's Colored Mission of South Reformed Church, New York.

The Rev. Dr. James M. King, General Secretary of the National League for the Protection of American Institutions, read a paper on "The Relation of Christian Principles to Civil Government."

After an animated discussion, in which Drs. Tyler and Deems and Professors Edward J. Hamilton and Daniel S. Martin took part, a resolution of thanks was presented to Dr. King for his timely and comprehensive address, and a copy requested for publication in CHRISTIAN THOUGHT.

EDITORIAL NOTES.

——The Sixteenth Summer School of Christian Philosophy will be held at Prohibition Park, West Brighton, Staten Island, beginning on the 12th of July, and lasting eight days. But the park is near the city. An hour and a dime carry a passenger by ferry and rail from the city to the park. There is also an excellent hotel and other houses in which visitors can be entertained. The convention of the Y. P. S. C. E. will be held in New York, closing on Sunday night, the 10th of July. The Summer School will begin on the following Tuesday morning. These facts are stated so that all who take an interest in The American Institute of Christian Philosophy may make their arrangements to be in New York, so as to attend the sessions of its Summer School. We shall soon be able to publish a programme of the papers that are to be read. It is hoped that the members of the Institute throughout the whole country will make this known to their friends who expect to be in the neighborhood of New York during the month of July, and direct them to the Summer School.

May we not hope that a larger number of members will be present at this Summer School than ever before, for a few days at least, if not for the whole session ?

——There are very many members of the Institute capable of producing important papers on subjects in our line of thought, but who are not able to be present at any of our monthly meetings or at the Summer School. We urge upon them to make a contribution to our work. Even short articles on the topics we discuss would be very acceptable, and, when published, would increase the variety and interest of CHRISTIAN THOUGHT. We earnestly urge our members to consider this. We are led to it by the fact that some of the most important papers we have used have been obtained by the discovery made by the President of the Institute in travelling through the country. Natural modesty keeps many a person of ability from writing for the Institute without invitation. The officers at the centre cannot know where all the good things are. Will you not aid us by sending the address of any person known to you as capable and probably willing ? Each member of the Institute is most respectfully requested to address a letter to the President before the 1st of July, giving opinions of the value of the Institute, and furnishing suggestions of methods to increase its usefulness. Will you not do this ?

——By an overlooked typographical blunder the name of our distinguished neighbor, the Rev. Dr. Greer, of St. Bartholomew's, in this city, was misspelled in No. 3, p. 236, in the list of new members.

——The editor cannot be held responsible for what occurs in the papers read before the Institute, as he has no discretion in admitting those papers or rejecting them from the pages of the Institute. The Institute intends to be as broad as a Christian body can be. It cannot always know in advance what any preacher or lecturer may say ; and, rather than be sensitively afraid of criticism, inserts papers, some phases of which perhaps no officer would endorse. Way is thus made for criticism. Any article published in CHRISTIAN THOUGHT may be properly criticised in the pages of the journal in which it appears.

ABOUT BOOKS.

[In this department we shall make mention of recent publications, especially those in the line of our studies. There will not be space for extended review. The name of the book, its publisher, and its price when known, together with a brief statement of its drift, will probably meet the demands of our readers. Any book mentioned will be sent post-paid, on receipt of price, by WILBUR B. KETCHAM, 2 Cooper Union, New York.]

——An important recent book has been published by John D. Wattles, Philadelphia. Its title is "The Divine Order of Human Society." The author is Prof. Robert Ellis Thompson, of the University of Pennsylvania. It consists of lectures delivered at Princeton on the L. P. Stone foundation. Prof. Thompson is well known as a writer on economic problems. The lectures attracted attention when first delivered. They discussed the family, the nation, the school and the church, in the light of Holy Scripture and of modern experience. Many of our readers will dissent from certain positions of the author, while they will be deeply interested in his discussions. The book is scientific, Christian, and earnest.

——"Great Thoughts of the Bible" is the title of a volume written by Rev. John Reed and published by Wilbur B. Ketcham, No. 2 Cooper Union, N. Y. The chapters treat of great thoughts of the Bible which pertain to certain characteristics of the Saviour, to certain characteristics of salvation, and to certain characteristics of the saved. These topics are handled with discrimination and vigor.

——A very remarkable book entitled "The Structure of the Bible," by Ivan Panin, is published by subscription ($1.50). It makes an argument in favor of the verbal inspiration of the Bible on mathematical grounds, by mere count of words. It is held that there are certain numerical phenomena in the Bible books which the authors could hardly have understood, but which show that only one mind could have planned the mathematical laws which are obeyed throughout the verbal construction of the Bible. We shall not attempt an account of the processes by which the author determined the editions of the Scripture to be used, nor even give a specimen of the very many most extraordinary mathematical phenomena presented in this book.

Those who are sufficiently interested can obtain a copy by sending $1.50 to the author at Grafton, Mass.

——"Buried Cities and Bible Countries," by George St. Clair, is published by Thomas Whittaker, New York ($2.00). It is beautifully printed and illustrated, but its chief value lies in its faithful account of ancient monuments as related to the sacred Scriptures. Its chapters are, "Egypt and the Bible," "The Palestine Exploration," "Jerusalem," "Gospel in the Light of Palestine Exploration," "Mesopotamia and the Bible." It is a book for reference which should be in the libraries of Christian families and Sunday-schools.

——Bishop Gaines has prepared a volume on "African Methodism in the South." It is a comprehensive account of the work of the A. M. E. Church in the South, and is especially in the State of Georgia. His position has given the opportunity to acquire a knowledge of all important facts in the case, and his ability has enabled him to prepare a volume of present interest and of future historical importance.

——T. Whittaker, Bible House, has issued a volume of sermons by the Rev. S. D. McConnell, entitled "Sons of God." The readers of CHRISTIAN THOUGHT have had a specimen of Dr. McConnell's style in a paper read before the Fifteenth Summer School.

——Interdenominational sermons have been preached in the John Street Church several years in succession. Those of last year have been gathered and published by Messrs. Hunt & Eaton. The new volume is edited by Rev. Dr. W. W. Bowdish, who was the originator of the course. There is an introduction by Rev. Dr. James M. King. Almost all the different denominations of Protestant Christians in New York are represented by the preachers of these sermons.

——The same publishers issue a volume entitled "Kolasis Aionios or Future Retribution," by George W. King, pastor of the Methodist Episcopal Church, Providence, Rhode Island. It is a presentation of the author's views of the Christian teaching as to the eternity of future punishment and the ground of endless retribution.

CHRISTIAN THOUGHT.

SCIENCE AND FAITH.

[Delivered before the American Institute of Christian Philosophy, February 2d, 1892.]

BY PROF. A. J. DU BOIS, of the Sheffield Scientific School of Yale University.

I HAVE reason to fear that many of my audience, upon learning the topic which I have chosen for this address—SCIENCE AND FAITH—have anticipated only one more, added to the myriads of efforts, more or less feeble or able, which are constantly being made in these days, to "reconcile Scripture with science."

The subject from this point of view is indeed a well-worn one. Hardly a month passes without discovering a new champion and bringing some new contribution. It is perhaps, therefore, only natural that you should have come here prepared to listen to one more disquisition upon this now somewhat threadbare theme.

If this be so, let me at once relieve your minds. I have nothing to do in this address with theology, or with theologic dogma or belief. I wish to guard at the outset most emphatically against any such misconception. I have little to say, except incidentally and in passing, even of religion and its claims, or of religious faith. Still less to say of Christianity and Christian belief. I wish to speak to you to-night of what we may call "scientific faith."

We hear much now-a-days from scientific men about the turpitude of believing anything without "scientific proof." All "sentiment" is *per se* to be distrusted, and all "bias" to be feared. One's personality is to be guarded against as a source

of error. To believe simply upon the basis of emotional interest, we learn from Huxley, is the "lowest depth of immorality." To believe even the truth, without scientific evidence, we are told upon the authority of Clifford, is "guilt" and "mental treason." To allow preference to tamper with judgment is an "unpardonable sin."

There is much of truth is these assertions. We owe much to science and to men of science, for teaching and enforcing such opinions, and for the new, intense love of truth which, largely owing to their labors, is rapidly spreading in these days.

Taken in the broad sense, that unworthy motives ought not to bias our judgment, such remarks are undoubtedly true and wholesome, but in this sense they apply as well to the scientist as to the theologian, they apply, in fact, to every student of human knowledge. Taken in the more specific sense, however, which seems always to be implied, that our so-called "scientific proof" is of a different nature and character from all other, they are not so evidently just. Scientific men themselves will, I think, admit that "sentiment," "imagination," even "personal equation" and "bias" are not always and invariably absent even from purely scientific debate, that scientific opinion does not always imply perfect equilibrium and unwavering neutrality, that it is "quite as possible to dogmatize about the nebular hypothesis as about the immaculate conception, and a congress of scientists is no more assured against premature generalizations than an ecumenical council."

It may be well, therefore, to dwell for a while upon the relation which faith—not religious faith or belief, but faith in its more general significance, that is, the acceptance of and belief in that which in the nature of things we cannot prove—bears to science. In other words, I want you to consider with me, somewhat more closely than is customary, the nature of those "proofs" which science accepts, and justly accepts, as conclusive, and upon what those proofs are really based.

This seems to me especially desirable, because there is at present a very prevalent, and, as I hope soon to convince you, a very erroneous, belief that science has, properly, nothing whatever to do with faith, even in the sense in which I have just de-

fined it. It is supposed to be the peculiar boast of the man of science that he believes nothing which is not rigidly "demonstrated"; that he accepts nothing as "proved" which rests merely upon trust. Many things, of course, he assumes, or thinks very probable and considers as true, which he cannot as yet prove. He has, it is hardly necessary to say, his "speculations," and his "hypotheses," and his "theories," as well as his "demonstrated facts." But he is supposed to draw, and he really does draw—more closely than is usual in ordinary discussion—a distinct and clearly-defined line between mere opinion and conviction. His beliefs, like those of all men, are open to future correction and emendation, as science progresses and new knowledge comes to light. But his convictions—those things which in the full light of reason and knowledge he is forced to believe and which he accepts as "demonstrated"—these are believed to be founded upon the rock. These are verities, eternal as the heavens, enduring as the earth—glimpses, he is fain to believe, of the methods and mind of One in whom is no variableness neither shadow of turning.

Thus, it has come to be very widely believed, and quite naturally. too, that in respect to its methods of proof at least, science has, and can have, nothing to do with faith. That the two are wide asunder as the poles; have no points of contact; and are even essentially opposed if not actually antagonistic. Faith believes on trust; science accepts only on evidence.

So common and widespread is this belief, that it even furnishes a sort of neutral ground, upon which to-day the theologian and scientist agree to meet in peace, if not in sympathy. "I deal," the man of science cries, "with facts which I find out for myself by observation. These facts are not 'revealed.' I do not take them upon trust. They are verities which my experience justifies and sanctions. I am convinced only by rigid demonstration, and that which I accept as proved is based upon a perfect chain of evidence, where every link is without a flaw, and not one step is made in uncertainty. The theologian goes to revelation, which he takes on trust. His facts are revealed, not found. His convictions rest on faith, not reason. Hands off then on both sides! Let there be peace between us. His

ways are not my ways, his thoughts are not my thoughts, his province is not mine. Let us each proceed upon our different paths, secure in the confidence that when the truth shall finally be manifest, the revelation of God's purposes to man will never, and can never, conflict with the revelation of God's methods in nature."

Such is, I take it, a fair statement of what is called the "tolerant attitude" of to-day. But, my friends, no lasting peace can rest upon such basis; and so we see that ever and anon the conflict bursts out again on some new field, only with added violence by reason of the deceptive lull.

Now, leaving entirely out of sight the religious side of the question, let us confine our attention to one of the hostile camps alone. It is well in such brief intervals of peace, while still weary with the stress of conflict we rest awhile upon our arms, to go over as fairly as we may the justice of our own side, and consider the validity of our own claims.

I want, then, to try and make it clear to you that science can justly draw no such dividing line, and has no right to thus mark off a boundary within which she must repel intruders. I want to show you if I can, that science herself stands firmly only on the foundation of faith. Deprived of that, the mighty structure she has erected, and of which she is so justly proud, must fall in ruins. That what we consider, and justly consider, our most certain knowledge does not and can not admit of "rigid demonstration." That our most positive convictions rest at bottom upon assumptions, whose truth must be taken simply upon trust. That our strongest convictions, whose verity we cannot without denying our very reason doubt, and would be willing to attest if need were, with our lives, have no better basis at bottom than that we think them to be true. That though science may and does differ widely from religion in its methods and in the character of its facts; in the character of its evidence it can justly claim not one particle of superiority, and its convictions rest upon the same foundation. That the conclusions of the one have no better claim to acceptance than those of the other, and that, in both alike, proof has its sole justification in experience, and conviction is the outcome of faith and faith alone.

In other words, my thesis is, that the basis of all scientific knowledge is faith.

To illustrate, make clear and support this thesis is the task which I propose to undertake, and the line of argument I have laid out is briefly this:

First. I shall ask your attention to the character of what is called scientific proof or "demonstration," as distinguished from "speculation," "hypothesis" and "theory," and shall show that when an hypothesis intervenes between the observed facts and the conclusion, that that conclusion is a "speculation" and not a demonstrated truth. Then I shall try to show you that all scientific proof is really based upon a single hypothesis, viz., that of the uniformity of nature, and, therefore, that there is no such thing in science, properly speaking, as "rigid demonstration." I shall enforce this conclusion by showing that the highest and most convincing kind of proof that science can ever attain to is merely cumulative in its nature, and, therefore, even if no assumption were made at all, the conclusion would not be "rigidly" deduced. Finally—I shall call attention to the fact that our experience is necessarily limited, and upon such limited experience only can we justify our belief. But since limited experience does not justify absolute conviction in the truth of anything, if, nevertheless, we claim such a degree of verity for our scientific conclusions, our only justification and ground for such belief is faith. Having thus shown that cumulative proof, based upon limited experience and resting ultimately upon a pure assumption, forms the basis of our most certain beliefs, I shall hold my thesis as proved.

But I shall go further. I shall point out that the imagination is very largely used in science as an instrument of discovery. That the "argument by analogy" is daily made use of in scientific investigation, and that this implies a new assumption, viz., the identity of plan and structure in nature. Finally—this identity of plan justifies the further assumption of community of origin, and thus science, based upon faith, is forced to find in the contemplation of one supreme and guiding intelligence, as the common source of all, the solution of that agreement between the mind of man and the works of nature,

which alone can justify its methods and give to its conclusions the force of absolute truth. Thus science, upon its own ground, and judged by its own methods and logic, must admit this conclusion as at least as certain and resting upon precisely the same grounds for belief as any of those other conclusions for which it so strenuously claims the universal belief of mankind.

Having thus cleared the way and outlined the argument, let me begin by calling your attention for a moment to the character of what is called "scientific proof." We speak in scientific parlance of "speculation," "hypothesis," "theory" and "demonstrated fact." Let us try and find out just what we mean by these terms, and for this purpose I shall expand an illustration used by Prof. Clifford for a similar purpose.

If, upon seeing me enter this hall, you should infer that I had just arrived here from the station; that I walked all the way here from the station, and that I walked moreover through certain streets in order to get here—that, if you had no good reasons for such a series of assumptions, would be a mere random guess. If, however, you had such reasons, it would be a "speculation," because the facts known do not force you to adopt it, but only render it more or less probable. Thus I may have come in a carriage or have started from a different place. To be sure you ought to have reasons which give more or less probability to your speculation, or else, as I have said, it would be simply a guess. Thus you know, for instance, the situation of the station and the hall, more or less of my habits, when I was expected to arrive, etc., and you know also that I was to be here at a certain hour to address you. All these known facts render your speculation more or less probable—without them it would be simply a random guess. It may or may not be actually true, and you would not accept it as true without further evidence. Still you may, in view of what you do know, accept it provisionally as probably true—as a reasonable suspicion; and such a conclusion or series of conclusions we call a "speculation."

Now, in arriving at your conclusion or at speculation, you have consciously or unconsciously assumed certain things to be true, of which you have no proof. Thus you assume, for instance,

that I walked; that I walked at my usual rate of speed; that I started from a certain place; and that I naturally took the shortest way here. Upon the truth of these assumptions, singly and collectively, your speculation depends. Each one of these assumptions we call an "hypothesis"—something hypothecated. We say if this or this be true, then it follows, etc. Your speculation then is based upon one or more hypotheses for which you have no proof, but only a probability more or less strong. But now suppose that you do know these things which before you assumed, viz., that I did walk; that I walked at my usual rate of speed; and that I started from the station. Then your conclusion as to the route I took is a "theory," because it accounts for all the known facts without any hypothesis at all intervening. It may or may not be true, and is therefore by no means certain or demonstrated. Thus I may have come by some other route of equal length, and that would account equally well for all the facts. We may have, then, several theories, all equally good, but each of them is a "theory" and not a speculation, because it is a strictly logical conclusion from the known facts; which accounts for all those facts; and makes use of no assumptions or hypotheses to connect the facts. From the facts we go back to the theory by a logical train which has no flaw.

But suppose, finally, that it is winter and there is snow on the ground, and that you have thus traced my footsteps all the way from the station to this house. Then your theory as to the route I took is said to be "demonstrated." From the known facts you go straight back by unbroken logical steps to the conclusion without any other theory being possible. The theory is thus demonstrated when all other possible theories are excluded; and in this way we arrive in science at what we call "demonstrated truth." This is the kind of proof which science claims and it certainly seems convincing enough.

Generalizing then, we see in the light of our example that a theory must be the strictly logical outcome of all the known facts. It shows the relations which exist between those facts and their mutual dependence. It may not be the only logical deduction, in which case we naturally adopt that which has the strongest probability. But we adopt it only provisionally, be-

cause it is serviceable and helpful in further investigation. We do not consider it as proved. But in any case it must be a strictly logical deduction from the facts, or it does not deserve the name of "theory."

When a theory can be thus reasoned back to from the facts however, without any other theory being possible, then the theory becomes "demonstrated fact."

When in reasoning back from the facts we come to a gap in our logic, which the facts so far as known cannot bridge over, we may sometimes leap the chasm by means of some assumption. The theory which then results is only as true as this assumption, which still remains to be proved, before conviction can result. Such an assumption we call an "hypothesis," and the resulting fabric of conclusion is known as a "speculation." Speculation, then, becomes theory when hypothesis becomes fact; and theory becomes demonstration when we become convinced that no other theory is possible.

If the assumption which we thus introduce has no reasonable grounds for its probable truth to commend it; if it simply serves as a mere device to bridge the chasm in order that the argument may proceed; then the entire result is no better than a mere guess, and even though it may afterwards be found to be true, it brings no honor, confers no fame, and has no place in science. Science tolerates no guess-work and has no respect for mere guessers. Of this character are many of the early attempts of the ancients to investigate nature, and this is the reason of their utter barrenness of result, although as we now know, some of them were partially true. The Ptolemaic system of astronomy, with its cumbersome mechanism of cycles and epicycles, is a good illustration; a system not logically deduced from the facts, but ingeniously fitted to them.

When, therefore, you hear, it may even be some very learned classical scholar, whose position and attainments command respect for his opinions, remark—as such men have remarked—that some of our modern theories are remarkably like the guesses of Democritus and Lucretius—which is quite true; and that they are, therefore, a mere revival of ancient guesses—which is not true and by no means follows—tell him that when

a great many people are occupied in guessing, and guess all the while all sorts of things, it may very well happen now and then that someone may guess nearer right than others. Tell him that when scientific men, however, speak in this year of our Lord 1892 of a "theory," they speak of a logical fabric into which no guesses enter; and that when they accept a theory as "demonstrated," it is because it not only explains all the facts, but also because we go back from the facts by a direct chain of experimental reasoning, which there is no getting rid of, to the theory. Tell him to try to overcome the disposition, so especially unbecoming in one of his learning, of making statements which a little previous investigation would convince him were untrue. To try and realize, if he can, that scientific methods have made some progress in the last thousand years or so, and that times have somewhat changed since the days of Democritus and Lucretius—although some of the men of that early day do appear occasionally to revisit the scene of their earthly and, in this respect, rather pernicious activities, and interfere sadly in the scientific work of this nineteenth century. After that, he will probably subside into silence and "historic" meditation.

And after all would not such words be justified, and are the scientific theories of to-day no better than the idle guesses of those "ingenious, excursive, yet self-fettered, Greek minds, grovelling in the dust of phrases; as vague in their notions of things as they were rigidly definite in their forms of expressing them"? In the words of Sir John Herschel: "There is a creature, a very humble and troublesome one, which reminds me of the Greek mind. You might know it for a good while as only a fidgety, restless, and rather aggressive companion, when behold, hop! and it is away far off, having realized at one spring a new arena and a new experience."

The method of science, as shown by the history of all the discoveries to which it has led us, is then as follows: The "trained scientific imagination," brooding over related facts and keen to discern analogies, conceives a speculation. Not a guess; not a wild and random fancy; but a reasonable suspicion —it may even be an inspiration! (Of the great and even essen-

tial part which imagination thus plays in science we shall have more to say hereafter.) The various hypotheses which this speculation necessitates are then subjected to the keenest scrutiny and by means of a logic so faultless that error in this direction is well-nigh impossible, they are followed up to their logical consequences. These consequences are then subjected to the test of experiment, and thus each hypothesis is in turn either rejected or accepted as fact. When the last hypothesis thus disappears, we have a theory. This theory we then again test by experiment and see if its conclusions are in accord with what we know. We thus, in the words of Tyndall, "carry it forth from the imagination into the world of sense, and see if the final outcrop of the deductions be not the very phenomena which ordinary knowledge and skilled experiment reveal. If in all the multiplied varieties of these phenomena, including those of the most remote and tangled description, this fundamental conception always brings us face to face with the truth; if no contradictions to it be found in external nature; if, moreover, it has actually forced upon our attention phenomena which no eye had previously seen and which no mind had previously imagined; if by it we are gifted with a power of prescience which has never failed when brought to an experimental test; such a conception, which never disappoints us, but always lands us on the solid shores of fact, must, we think, be something more than a mere figment of the scientific fancy. In forming it, that composite and creative unity in which reason and imagination are forever blent has, we believe, led us into a world not less real than that of the senses, and of which the world of sense itself is the suggestion and the justification."

You are all doubtless familiar with the "undulatory theory of light," as it is called in physics, which asserts light to consist in transverse vibrations of a wonderful fluid, which is called the "ether of space." Those who are familiar with the development of that theory and with the evidences for it will readily admit that it is for them more than a theory—it is a demonstrated fact! Suggested originally by analogy with sound, and originating therefore as a mere speculation, it goes to facts for its verification. Straight back from the facts of reflection; refraction, single and

double; radiation, polarization, interference, with all their attendant phenomena, however intricate or complex; the theory unravels all, accounts for all, harmonizes all, explains all. From the facts we go straight back, by an unbroken chain of experimental evidence, to the theory itself, without any other theory being possible. Confirmations unsuspected crowd in on every hand. New facts come to light and do but strengthen our conviction. Finally, as the prediction of the place and orbit of the unseen planet Neptune by Leverrier and Adams put the seal and stamp of truth forever upon the theory of gravitation, so the theory of light and the existence of the ether received its final proof by the prediction of conical refraction by Sir William Hamilton, based upon pure mathematical deduction, before any phenomena of the kind had ever been observed or suspected.

A doctrine which is the logical outcome, and the only logical outcome, of all known facts; which encounters no phenomena of which it does not furnish an explanation; from which every legitimate deduction finds its verification in nature; "which points to facts and leads to discoveries which require for their exhibition adjustments so delicate and conditions so difficult to secure that, but for the clew thus furnished by theory, they would probably have remained forever unknown; which binds together phenomena, the most diverse in their nature, by a connecting link, the simplicity of which is without a parallel in the history of science"; such a doctrine is more than a theory, it compels belief and forces conviction.

This, then, is the evidence upon which scientific truth is accepted, and it certainly seems convincing enough. We believe a thing when we are prepared to act as if it were true, and we certainly do so act upon the conclusions of science every day and every hour of our lives. But let us guard against taking the degree of our conviction as a test of the validity of the evidence. Upon what grounds do we believe? I say, ultimately upon the ground of faith and faith alone.

Every conclusion in science is based upon one assumption. An assumption which we cannot prove to be true, and yet we assume and believe that it is. That assumption is the uniformity of nature. We assume and believe that the forces and laws of

nature are the same to-day, and will be the same to-morrow, that they were yesterday. That like causes will always and have always produced like effects. Without this assumption no science is possible. Without it the simplest experiment loses its force and value, and the whole structure of science falls to the ground.

And this assumption we cannot prove, but must take it on trust! And we do take it on trust without a murmur. Concerning it Helmholtz says, "*Hier gilt nur der eine Rath—vertraue und handle*"! and of it Bain says, "Our only error is in proposing to give any reason or justification, or to treat it as otherwise than begged at the very outset."

"What," some one may be tempted to exclaim, "does not all our experience prove it to be true? No proof of it? Why every new discovery is a fresh proof of it! Every advance in knowledge adds to our belief in it! Every new confirmation of theory by experiment; every particle of all our past knowledge and every new addition that it receives; every new invention or utilization of the powers of nature in the present and every such utilization in the past; the daily experience of every human being that lives or has lived, all go to prove it true! It is the most certain and the surest knowledge that we have in this world—the one belief that we all feel we can rest upon—as solid and enduring as the earth itself!"

Most true! And yet the only "proof" we have, or can ever have of it, is not direct but inferential, not complete but cumulative in its nature. That which can be added to is never complete. Until every atom in this universe is examined; until nothing remains to be known or investigated; until science has said its last word and nature offers to man's searching gaze not a single unexplored nook in all the mighty realms of infinite space, there will be still a loop-hole for doubt and the proof is not complete! Thus the very basis of all our knowledge rests upon that which cannot be proved. The demonstrations of science turn out to be speculations merely, based upon an hypothesis. We walk by faith and not by sight!

But how is it, then, you may ask, that our conviction is so perfect? I answer, because the experience of all mankind has never once found the assumption to fail.

Let me illustrate the character of this proof. Babbage, in one of the Bridgewater Treatises, instances his well-known "calculating engine." This engine, if I remember rightly, can be so arranged and adjusted that at every turn of the handle it will expose to view a number greater, by say two, than the preceding. Thus if the first number is two, the next will be four, the next six, and so on. Now let a man turn the handle once every second and keep turning, hour after hour, and day after day, till the days run into months and the months into years. At every turn he observes the invariable result, always greater by two than the next preceding. At the end of 100 years, what would be the conviction of that man as to the next number which the next turn would reveal? Why he would stake his life without hesitation—what little remained of it, that is—upon the result, so sure would he be. And on what grounds? Simply upon the grounds of experience! The machine had never deceived his expectation, or contradicted his involuntary assumption of the law upon which it worked, and he assumes and believes that it never will. And yet, on the last turn of the last day of the 100th year, that machine, by reason of the very law of its mechanism, which the man thinks he knows so well and really does not know at all, would suddenly and without warning make a single break in the sequence of the numbers of the series, and then would run on forever as before. The man would probably be astonished at such an unheard of result, but he would be obliged to confess that, at bottom, his belief had been founded upon faith and faith alone, and not upon proof. Such proof as he had was cumulative and grew stronger with every turn. But the real foundation of his belief was faith in the uniform action of the machine, and the only ground for this faith was limited experience. From that which he knew he inferred that which he had no means of knowing, and his very positive conviction had no better basis than an assumption of uniformity, which he accepted only upon faith.

Now, we have in this world of ours no stronger proof than this of the truth of any scientific conclusion. Indeed Babbage instances it to show how a miracle, that is, something contrary to all previous experience, may still be strictly the result

of natural laws. To the man at the crank such a failure would be a miracle; and yet the mind that devised the machine provided beforehand for that very result. We have no stronger proof than this, that the sun will rise to-morrow in the East, and if it did not, it would be for us miraculous. Like the man in our illustration, we would also, and upon the same grounds, stake our life upon the result—and, like him, too, we might be wrong.

Such comparisons cannot in the slightest degree shake the strength of our convictions, however. I do not intend them to do so; I simply instance them to show the character of the proof upon which we rely. Still we believe! We are ready to peril life upon our belief!

But, not only is the proof of all scientific belief thus cumulative in character, and therefore never complete, but it rests also upon experience, which is necessarily limited, and therefore not logically conclusive. Where reason fails, faith must step in to fill the gap.

If anything is considered certain in this world, the truths of pure geometry may lay claim to that distinction. Here at least we seem to touch absolute truth. Even almighty power, it is claimed, could not make the three angles of a plane triangle add up greater or less than 180 degrees. But it is not so. Whether man does or does not ever attain to absolute truth, one thing is certain: he cannot know, and he can never logically claim that he does. Even the truths of geometry rest upon "axioms," and these axioms are only "self-evident," as we say—that is, we have to believe them, because all our experience is in accord. But since experience is limited, to suppose them absolutely true is to assume, by faith, that which we cannot demonstrate. The proof is not "rigid." An hypothesis intervenes, and geometry, with all its conclusions, is but a speculation!

It is interesting and instructive to consider how our mere size alone, which is only one of our many limitations, must ever influence our experience. Suppose, for instance, as Helmholtz has supposed, reasoning beings of only two dimensions to live upon the surface of a sphere. The three angles of a triangle, in their geometry, would not add up exactly 180 degrees, but would always be greater. Such beings would have no conception of

parallel lines—any two of their shortest, or, as we call them, "straight lines," sufficiently produced, would meet. The shortest distance between two points would not be for them a straight line, but a curve. In fact, there would be for them no such thing as a straight line, as we understand it. What a different geometry theirs would be from ours! But yet it would be in exact accord with all their experience, and they could claim, with equal right, that its deductions were absolutely true. Their axioms would be very different from ours, but equally "self-evident" to them. They would be as certain of their propositions as we are of ours, and they would have precisely the same justification. They would be wrong, however, in claiming absolute truth; and so may we!

Indeed it is well worth while to dwell a little upon our necessary limitations upon this earth, and the influence which such limitations must have upon our knowledge.

Professor Crookes has given a very good illustration of this. Let me give it as briefly as possible. Suppose that we were all reduced to the size of the minutest living beings, but preserving our mental faculties precisely as they are now, and the same physical powers, in proportion to our bulk, which we now enjoy. What a different world would this we live in then appear to be! A cabbage-leaf would be for us a plain of many square miles in extent. The huge glittering globes of dew upon its surface would each pour out a dazzling light and fervent heat. If, urged by curiosity, we should touch one of these mysterious orbs, it would seize upon us, snatch us rudely from our feet, and whirl us round and round upon its surface, lost and helpless. The surface of the soil would be for us rugged and rocky beyond description. Here and there would be vast surfaces of the same kind of matter as the huge and terrible whirling globes upon the cabbage-leaf; but instead of rearing itself aloft in the shape of a huge globe, it would appear to slope downwards in a vast concave, ending in what would appear to be a level surface. If with a vessel our little being should try to dip this substance up, he would be unable to lift his vessel from the sticky surface, and if he succeeded in this he would find the contents to stick to the pail, and would not be able to dislodge it, except by violent

shocks, when the pail is inverted. If he should insert one end of a pipe, open at both ends, into this peculiar substance which we call water, it would at once run up the pipe to an immense and unknown distance. What would be the physics of such a creature? To him liquids would not seek their own level; their surfaces would not be horizontal when at rest, and water would be a sticky, viscid substance, like tar, and would run up-hill. The law of gravitation would not be universal. He would even have reason for doubting the inertia of matter; would be entirely ignorant of the properties of heat, and could have no chemistry at all! And all this simply and solely by reason of the limitations imposed upon him by reason of his size!

Let us now pass from Lilliput to Brobdignag, and consider how nature would appear to rational beings of enormous magnitude. Capillary attractions of liquids would be utterly ignore l and unknown. The dew-drop and the curvature of water, when bounded by a solid body, would be invisible. The behavior of minute bodies, when thrown upon a globule of water, would escape the attention of our Colossus. If he should stoop down and take up a pinch of earth and rub it between his finger and thumb, the gravel would smoke and melt beneath his touch. The very soil would turn to lava beneath his mighty tread. He could hardly move without the liberation of a very inconvenient amount of heat. Everything would be literally too hot to hold. Granite rock and the earth's surface itself would have for him the properties of phosphorus, and would explode if he but scratched them with his finger nail. And all this, simply and solely because of his size, and that alone.

Need I point the very obvious moral? "If mere differences of size," says Crookes, "can cause some of the most simple facts in chemistry and physics to take on so different a guise; if beings infinitesimally small and immensely great would, simply as such, be subject to the delusions we have pointed out; is it not possible that we, in turn, may also, by mere virtue of our size, fall into misrepresentations of phenomena from which we should escape, were we either larger or smaller?"

I need hardly point out for your reassurance, that man's place in nature seems in this respect at least to occupy the golden

mien. Limited as he is in many other directions, the very fact that he can state and apprehend such difficulties is one proof of this. He stands midway between the two infinities, and his glance goes far both up and down. He peers into the secret places of the earth and reads the story of the past. With the eye of the microscopic animalcule he scrutinizes even the very molecules of matter, and actually measures the size of the atoms themselves—the very smallest things this earth contains. He looks out from his floating island, as it swims through space, and with the vision of a demi-god, he counts the far-off suns ; resolves the misty nebulæ ; watches the formation of new worlds ; weighs the planets and predicts their futures ; and analyzes the comet's trailing robes. The universe seems indeed his to conquer and to know—the great and glorious revelation which he is meant to read ; with which no man can tamper, and which neither tradition nor prejudice can obscure.

And like that other revelation of God to man, he reads it with the eye of faith and faith alone. Reason indeed is his guide, but faith—that faith which, resting upon experience, nevertheless transcends experience, must be the rod and staff on which he leans.

We see then, that our scientific proof, which we consider so certain, is cumulative and therefore falls short of demonstration. That our experience is necessarily limited, and therefore not conclusive. That the foundation of all our knowledge is an assumption, which, though highly probable, cannot be proved.

And yet we believe ! Our conviction is so perfect, that even if exact and rigid demonstration were possible, it would not add one particle to the positiveness of our conviction. The fact remains then, that we believe that which we cannot prove. The scientist, no less than the theologian, rests his conclusions ultimately upon faith. Where reason halts, faith steps in and leads us onward, and upon this basis of faith our most certain convictions are founded. We believe, without proof, that God's methods are uniform and never change. That the mechanism of this universe will never make a sudden break in the continuity of its operations. That the Great Mechanic will never put us to permanent intellectual confusion. We believe this, but with-

out proof. Nay, more ! we have to believe it, for we have never yet found our assumption to fail. Man is, therefore, not only a reasoning, but essentially and in the constitution of his mind, and by virtue of his very environment a believing being ! It would seem that the highest and the best lesson that science has to teach him, apart from all questions of utility or intellectual satisfaction, is, that reason alone is powerless. Reason must be supplemented by faith, and that faith can be trusted, when sanctioned by reason, to lead to truth.

But this assumption of the uniformity of nature is by no means the only one that science makes. Every advance in science owes much to the imagination, and analogy is one of the most fruitful means of discovery. But in thus working by analogy and allowing imagination to help in the work of investigation, every scientific investigator, consciously or unconsciously, assumes also an identity of plan or structure in nature.

It is a very common and a very sad mistake, to suppose that the pursuit of science is dry and wearisome ; that its results, however true and even useful, have no delights for the imagination and no lessons for the soul ; that its problems and pursuit are deadening to the fancy. Do you suppose that a man, with the heart of a man in his breast and the soul of a man in his body, can give long days to dry calculations, and live laborious years, and burn the midnight oil through weary nights, and be content to win for all his toil only a few dry facts or a little transitory fame ? There can be no greater error than this. Man has no greater inducement to the exercise of lofty imagination than in the pursuit of science, and nowhere is such exercise more fruitful, more beneficial, or more elevating. Science it is which teaches us to look below the surface of things, and to discern in the familiar things of daily life hidden analogies which lift them from the dust and link them with the stars.

Common and prosaic ! Why, it is the boast and glory of science, that it illumines and transfigures all it touches. Touched by the sunlight of revealed law, long-hidden relations burst from the darkness and point the way to wider knowledge, while the common things of daily life take on a new beauty and glow with a deeper significance.

It is the old, old story of "eyes and no eyes," or sight and insight.

> "A primrose by the river's brim
> A yellow primrose was to him,
> And it was nothing more,"

was not said of the man of science. For him that little primrose sends down roots which net this mighty globe in their embrace and stretches out invisible tendrils, which wind themselves about the very stars of heaven.

In this respect the man of science is nature's truest poet; and not only poet, but teacher, priest, and prophet, too. Books he finds in the running brooks, and sermons in stones. From humblest things he draws the highest lessons; from trivial texts he preaches the grandest sermons; and from a little sea-worn shell unfolds the past and draws the inspiration and the gift of prophecy. From tiny insect track upon the hardened sands of long-dried and vanished rivers, to circling planets and clustered suns, he finds everywhere the manifestations of a power which counts nothing as great, and to which nothing is insignificant. In this grand continuity of nature the meanest worm that crawls the earth may furnish subjects for contemplation so glorious "that to work at them rejoices and encourages the feeblest, delights and enchants the strongest"—subjects which by the immensity of their range entrance the imagination; by the grandeur of their conclusions elevate the mind; and by the sublimity of their conceptions exalt and ennoble the soul.

This is for man the noblest function of science. No mere utility can bound its bounty, though to it man owes all he has of comfort and of power. Exalting all his noblest instincts; heightening all his purest pleasures; developing and strengthening his intellectual faculties; it leads him on and ever on—from fact to thought, from thought to principle, from cause to effect, from effect to law, from law to hypothesis, from hypothesis to speculation—ever onward and upward, till, face to face with the unknown, he peers with bated breath and reeling brain far out into the dark fathomless depths of infinitude itself.

Consider a drop of dew! Think you the eye of science sees nothing in it but so much hydrogen and oxygen? Why, it is

a rich mine of speculation—a world in embryo—"with a load of electricity sufficient to charge a thunder-cloud; the abode of tremendous forces which would shake this building in their unchained rage!" Ah, no! "A woman's scolding," says Starr King, "may be but a few puffs of articulate carbonic acid, but her tears are liquid lightning"!—"the type," says Prof. Pierce, "of infinite beauty in the rainbow; the embodiment of infinite love in the dewdrop; the storehouse of inexhaustible knowledge; the fitting vehicle of a divine baptism."

Or take that little word, the "sun." To the childish mind, and possibly to many here present of a larger growth, it recalls, perhaps, the image of a disc of cloudy fire, slowly sinking, large and red, beyond some distant hill, or, shining it may be, in all its dazzling splendor down from an unclouded sky. Simply this and that is all! But to the astronomer, what a grand, majestic vision of a mighty mass of flaming clouds and fiery tempests, plunging madly through star-filled space, with all its radiant retinue of circling planets, flashes into being at the simple sound! Thus science gives even this grand old mother-tongue of ours an added power to move and thrill, and fills old words with new power and grace and beauty!

Yes! it is the old story of sight and insight after all! "Let a fool," says Starr King, "own a park and live in it, and he sees only the shell of some trees and the surface of some visible ground. Let Humboldt live in a porter's lodge by its gates, and he will feel that he is riding on a rolling wheel among the stars.

"'Twas a buzz of questions on every side,
'And what have you seen? Do tell!' they cried.

"The one with yawning made reply,
'What have we seen? Not much have I!
Trees, mountains, meadows, groves and streams,
Blue sky and clouds, and sunny gleams.'

"The other, smiling, said the same,
But with face transfigured and eye of flame:
'Trees, mountains, meadows, groves and streams,
Blue sky and clouds, and sunny gleams'!"

Science lacking in ideality! Why, consider for a moment this wonderful ether of space, in the actual existence of which

the man of science believes as implicitly as he does in his own. Universal, omnipresent, all-pervading, filling all this illimitable universe! A fluid of such extreme tenuity that its resistance to the motion of bodies moving in it is inappreciable, even when those bodies are huge masses like the earth, moving at the rate of 100 thousand feet per second! So subtle and ethereal is this marvellous fluid, that it passes through the densest solids as easily as water flows through the meshes of a net! So extremely rare is it, that one cubic mile of it has a mass of only $\frac{1}{100 \text{ millionth}}$ of a pound! So very thin is it, that it surrounds the atoms, even of the densest bodies, with an atmosphere, just as the air surrounds the earth! And yet it is so elastic, that it transmits a vibration communicated to it at the rate of 188 thousand miles per second! If an amount of it, equal in weight to a cubic inch of air, were enclosed in a cubic inch of space, its pressure upon the confining walls would be upward of 17 billions of pounds!

And this is sober fact, not fiction! We have no better grounds for believing in our own existence than in the actual reality of this impalpable, invisible, all-pervading fluid. What a striking refutation is this of the too prevalent impression that the scientific mind is lacking in faith! That the scientific training is deadening to the imagination! Why the physical investigator lives in an invisible world and deals with the intangible. The first lesson which science has to teach him is faith—faith in the unseen. Behold, what incredible things he can swallow without so much as even a wink, if they are only "scientific"! What a striking illustration, too, of the heights and depths to which the study of nature can take us, when we rise by logical steps, from the consideration of a fragment of glass and a beam of light, to such a conception as this! There is no better illustration of the tendency of scientific thought from the concrete to the abstract, from the material to the spiritual and the ideal. This wonderful ether seems, indeed, the very soul itself of matter; its informing and vital principle—no longer material, but ethereal; filling the universe with light and energy; a fit emanation from the great source of all energy, and in its yet unexplored properties and action lie hid, beyond a doubt, many of the weighty secrets of the future. Light, heat, electricity, magnetism, gravitation, we

must look for their explanation to it. It would seem as though man, with his present limitations, could go no farther, nor penetrate deeper, into the mysteries of nature. Small wonder is it that two of the prominent physicists of the day have made it the basis of their daring speculations as to the physical possibility of a future state for man, have found in it the unfading, ever-present record and register of all the past, the bridge by which, when the golden bowl is broken and the silver cord unloosed, conscious existence in the future may cross even the dark gulf of death itself, and pick up upon the golden shore the broken thread of life!

In truth, the man of science is "pavilioned amid infinite beauty," and finds everywhere food for imagination and lofty thought. He reads from the same book as the poet, and he reads with an even deeper insight, too. From the earliest ages, "while yet this world was young," man has recognized this all-pervading ideality of nature and embalmed it in his ancient mythologies. And what though to-day the dryad and the nymph are gone from forest, tree and brook! "Neptune with his tritons and his sirens and his naiads; Apollo and Minerva with the muses; Pan and Flora with the fauns and nymphs and flowers; Venus with the graces; Terminus and Vertumnus with the lares and penates; Pluto and Proserpine; Uranus and Saturn; Jupiter and Juno, with all the other 'dimly discerned human recognitions of the universal ideality of nature'"—all, all are gone! A laughing sprite no longer peeps out at us from the chalice of every flower, nor a shy nymph hide behind every tree. The fairies' magic circle is no longer found in the wild wood; Puck and Titania no longer hold their midsummer night revels; and the hobgoblin no longer plays his midnight pranks. Jack Frost has ceased to touch our window-panes with magic brush, and Santa Claus has made his last trip down our chimneys. The gods of ancient Egypt, "whether incarnated in bull, or hawk, or cat, or beetle, or vulture, or ibis, or crocodile," all of them so many witnesses to man's "ineradicable belief in a nature permeated with intelligible thought, and ordered and governed by superior mind," have gone the way of all the rest! The old time fables of a youthful world and the nursery tales and fancies of happy childhood, alike have disappeared! And what have we left? Has

science given us nothing in their place, and has poetry been banished from meadow and from grove together with the gods of Egypt and of Greece and Rome? Ah, no! A higher flight of fancy and a deeper, clearer insight into the meaning of it all is ours to-day! Go to the man of science and let him read you the lessons of the brooks and stones. Follow him as he reads in the rocks the story of the past, or finds in the stars the promise of the future. Let him tell you of a world of atoms in mysterious unrest and palpitating with the energy of an unseen power. Of an all-pervading subtle ether whose unceasing surges, sweeping in awful majesty through the hushed realms of space, roll up their crests even to the foot of the great white throne itself! Of an exquisite harmony, than which no poet ever conceived a grander; a wondrous mechanism, so vast in its proportions, so harmonious in all its parts, so beneficent in all its adaptations, so imposing in the solemn grandeur of its mighty operations that the soul is lifted in awe and adoration to the contemplation of that unknown source it cannot help but own. Follow him in his grand and lofty speculations until you hear with him, in silent awe, the very music of the spheres, and until the silent pulses of the night find a responsive echo in your own soul; and then say if you can that science has no use for the imagination. Ah, no! Believe me, far beyond all others

> "God Himself is the best poet,
> And the real is His song."

Moreover, imagination is for man, not merely a source of mental enjoyment and pleasure alone; it is his most valuable working instrument, bringing him as it does into direct contact with the mind of God himself, and enabling him to learn His ways and to think, in some measure at least, His eternal thoughts.

It is worth while to consider at somewhat greater length the important part which mere analogy, or "trained scientific imagination," thus plays in the discovery of scientific truth. It lies at the basis of every speculation and has led directly to some of the most brilliant conquests of science. Science is full of instances.

Take one only, out of many examples which might be ad-

duced, of this remarkable convergence of apparently disconnected facts.

The botanist, says Prof. Winchell, "finds plants in which the leaves are arranged upon the stem in definite mathematical relations. In some, the leaves stand opposite, or separated by one-half the circumference. In others, they wind spirally round, separated by 1-3, 2-5, 3-8, etc., of the limb upon which they jut forth. These numbers are obtained by actual observation, and there are plants whose leaf arrangements are known to correspond to each of these fractions. Now notice the relation which subsists between the successive fractions. Each numerator and each denominator is equal to the sum of the two preceding numerators and denominators. Knowing this relation, we may continue the series. This has been done, and the plants have in many instances been found to correspond. The leaf arrangement of every plant conforms to some fraction of this series, and no plant whatever has ever been found, whose leaf arrangement is represented by a fraction not given by it."

Now let us turn from the stars and meadows of earth to the "infinite meadows of heaven." Neptune, the remotest planet, revolves about the sun in about 60,000 days. Uranus, the next, in 30,000 days or 1-2 the preceding. Saturn, the next, in 4,000 or 2-5, and so on. We may go through the system and find the law expressing the relation of the times of revolution of the planets, identical with that which determines the arrangement of the leaves upon the stem of the plant. This wonderful identity applies to the asteroids as well, and is so exact and uniform in its application, that before the discovery of the planet Neptune, the botanist in his garden might have predicted its existence and its place with a precision as great as the astronomer in his closet. Truly, the philosopher, no less than the poet,

> "faithful and far-seeing,
> Seeth in the stars and flowers a part
> Of the self-same universal being
> Which is throbbing in his brain and heart."

Science, I say, is full of such analogies. And in the words of Emerson, there is nothing lucky or capricious about them. They

are constant and pervade nature. "These are not the dreams of a few poets, here and there, but man is an analogist and studies relations in all objects. He is placed in the centre of beings, and a ray of relation passes from every other being to him." It is by just such analogies that the man of science has been led to his greatest discoveries. Experiment and reason may test and prove them, but analogy first suggests them. The doctrine of light owes its discovery to its analogy with the propagation of sound through the air. The inspired guesses of Kepler, guided by this faith in the structure of the heavens, found their counterpart in nature; and a falling apple suggested to Newton the idea of a falling moon, and led to that grand generalization—the grandest known to science—which embraces them all. "The dreams of Pythagoras and Plato have been matched by the numerical relations discovered by modern science. The wisest physical philosophers," says no less an authority than the late Prof. Pierce, of Cambridge, "have ever been the most rigid observers; they have penetrated through fact to the inmost soul of nature; and their proudest discoveries have invariably been vast intellectual conceptions exhumed from the recesses of the material world." And it is no less an authority than Newton himself,—the acknowledged master—the man "whose guesses were better than other men's discoveries"—to whom we owe the hint that there is a certain style in the operations of divine wisdom, in the perception of which philosophical sagacity and genius seem chiefly to consist. In other words, that man is the most successful investigator who best apprehends the system, the style of workmanship, of the Great Artificer—whose mind is most in harmony with His mind and whose thoughts are most nearly allied to His. This is it, "which is at once the explanation and the justification of that feeling of delight in the sights of nature, and that sympathy with the forces of nature, which is quite distinct from delight in beauty of form and color, though often blended with it"—that

> "sense sublime
> Of something far more deeply interfused,
> Whose dwelling is the light of setting suns,
> And the round ocean, and the living air,
> And the blue sky, and in the mind of man."

Yes, in the mind of man! "Have mountains, and waves, and skies," says Emerson, "no significance but what we consciously give them when we employ them as emblems of our thoughts? The word is emblematic. Parts of speech are metaphors because the whole of nature is a metaphor of the human mind. The laws of moral nature answer to those of matter as face to face in a glass. The axioms of physics translate the laws of ethics. This relation between the mind and matter is not fancied by some poet, but stands in the will of God. It appears to men or it does not appear. When in fortunate hours we ponder this miracle, the wise man doubts if, at all other times, he is not blind and deaf:

> "Can these things be,
> And overcome us like a summer's cloud,
> Without our special wonder?

for the universe becomes transparent, and the light of higher laws than its own shines through it. Because of this radical correspondence between visible things and human thoughts, savages, who have only what is necessary, converse in figures. As we go back in history, language becomes more picturesque until its infancy, when it is all poetry; or all spiritual facts are represented by natural symbols. The same symbols are found to make the original elements of all languages. It has, moreover, been observed that the idioms of all languages approach each other in passages of the greatest eloquence and power. And as this is the first language so it is the last. This immediate dependence of language upon nature, this conversion of an outward phenomenon into a type of somewhat in human life, never loses its power to affect us. It is this which gives that piquancy to the conversation of a strong-natured farmer or backwoodsman, which all men relish." And again—"The poet, the orator, bred in the woods, whose senses have been nourished by their fair and appeasing changes year after year, without design and without heed, shall not lose their lesson altogether in the roar of cities or the broil of politics. Long hereafter, amidst agitation and terror in national councils—in the hour of revolution—these solid images shall reappear in their morning lustre as fit symbols and words of the thoughts which the pass-

ing events shall awaken. At the call of a noble sentiment, again the woods wave, the pines murmur, the river rolls and shines, and the cattle low upon the mountains, as he saw and heard them in his infancy. And with these forms the spells of persuasion, the keys of power, are put into his hands."

Yes, man is indeed an analogist. But in thus using analogy as an instrument of research, and accepting imagination as a guide to truth, the scientific man makes consciously or unconsciously two assumptions. He assumes, first, an identity of plan or structure to run through creation; and he assumes, also, the existence of intimate relations between the constitution of his own mind and God's revelation of Himself in the works of nature. This intimate relation it is which can alone justify man's belief that his imaginings can find their counterpart in nature. That such imaginings *do* find their counterpart in nature, the entire history of science attests. So satisfied are we of this fact, that the imagination of the physical investigator is constantly at work to discern new analogies and find the starting-point for new speculations; confident as he is that such analogies are sure to prove fruitful in discovery, and that, in the word of Prof. Pierce: "wild as are the flights of unchained fancy and extravagant and even monstrous as are the conceptions of unbridled imagination, still there is no human thought capable of physical manifestation and consistent with the stability of the physical world, which cannot be found incarnated in nature."

Thus, in the eloquent language of Prof. Tyndall: "Bounded and conditioned by co-operant reason, imagination becomes the mightiest instrument of the physical discoverer. Newton's passage from a falling apple to a falling moon was a leap of imagination. When William Thompson places the ultimate particles of matter between his compass points, and applies to them a scale of millimetres, it is an exercise of the imagination. In fact, without this power, our knowledge of nature would be a mere tabulation of co-existences and sequences. We should still believe in the succession of day and night, of summer and winter, but the soul of force would be dislodged from the universe; causal relations would disappear, and with them that science which is now binding the parts of nature into an organic whole."

Here, then, we have one of the "high priests of science"—the man of the "prayer test," the most sturdy and outspoken "materialist" of them all; who professes to find in matter alone the "promise and the potency of all"—frankly acknowledging the dependence of science upon faith; nay, more, claiming that without it, the entire collection of sequences and conclusions which constitute science must fall apart like a bundle of sticks without a string! For, mark you, these two assumptions of the identity of plan in nature, and of the correspondence of mind with matter, which can alone justify the use of the imagination in science, cannot be proved. We only think them true because the outcome is justified by experience.

On such a foundation, then, of assumptions and admissions, which have never, and can never, be demonstrated, whose sole justification is the test of a limited experience, whose only proof is in the nature of things cumulative, we have built up this vast and splendid edifice which we call Science! We fall down and worship it, and say, Behold, it is founded upon the rock of certainty! It shall surely endure for ever! Who can pull it down? And yet the rock it is founded on is the rock of faith.

We believe, then, in the absence of proof. We believe! Aye, we believe so firmly, so fully, so positively, that we would, and indeed do, stake daily our lives, our fortunes, all we hold dear, upon the absolute truth of a limited experience, and upon the validity of conclusions founded upon an "if." So firmly, so fully, so positively do we believe that even direct and rigid demonstration, if it were attainable, could add to our conviction not one particle of strength.

Who, then, can question our position, if we choose to go one step farther, and add still one more assumption to those which science accepts? If we assume, in addition, that which all experience confirms and all analogy suggests, that identity of plan implies community of origin, that the correspondence of mind and nature demands the recognition of a common source for both, that "the divine image, photographed upon the soul of man from the great centre of all light, is everywhere seen reflected from the works of creation"? That, in short, it may well be more than a mere poetic fancy which sees in this earth

"but the shadow of Heaven, and things therein,
Each to the other like, more than on earth is thought" ?

Surely not the man of science! Does his "certain knowledge" rest upon so sure a foundation that he can call a halt just here? We go to analogy, as he does, and analogy suggests it. We look abroad upon the works of nature, and they confirm it. We look within, and the experience of every heart and the constitution of every mind demand it. We go to all experience for an answer, and we find that all experience is but

"an arch where thro'
Gleams that untravelled world whose margin fades
Forever and forever as we move."

Finally, we live not only in a world where proof is merely cumulative, where knowledge and experience are limited, where faculties are restricted, but we live in a world of mystery, where the imagination has often led to truth; where great discoveries have more than once foreshadowed themselves as happy fancies; where we ourselves, with our inherited and acquired powers of mind and body, our "instincts" and our "prejudices" and our "bias," our mental habits and our thoughts, with our intellects and our emotional nature also, are a part of the nature we explore. He is a bold man who to-day can deny to the inductions of our emotional the validity due to the deductions of our intellectual nature. They both exist; both have led to truth, and both should work together in the quest of knowledge. Consider for a moment the underlying mystery of the tangible world we study and explore.

The physicist deals with matter and its laws and comes at last face to face with the atom. And here, to the intellect alone, what further backward step is possible? "These atoms," says Sir John Herschel, "how is it then that they 'obey' law? Are they then sentient? Do they know? Can they remember? How else can they obey? Conform to a fixed rule! Then they must be able to apply the rule." Their movements, their interchanges, their "hates and loves," their "attractions" and repulsions, their "correlations," are all determined in the very instant. We speak of them—we have to speak of them, by a veritable induction of the imagination, which the man of science cannot im-

peach,—in terms of intelligence, of guiding will, of purpose and of mind. "There is," says Herschel, "no hesitation, no blundering, no trial and error. A problem of dynamics which would drive Lagrange mad is solved *instanter*. A differential equation which algebraically written out would belt the earth is integrated in an eye-twinkle."

This mystery—this ever-present mystery, so common that it almost ceases at times to impress us as a mystery at all—of intelligence, not merely back of matter, but actually in matter, stares us in the face wherever we turn. In such matter we may well see the "promise and the potency of all." But when we ask ourselves what these inflexible and unfailing laws of matter really are, science is without an answer.

This is the lesson taught by every department of science. In mathematics, "the very highest reach and proudest triumph of analytic achievement, we find that our symbols overstep their appointed purpose, and our equations traversing the mystic region of 'imaginary' expressions, transcend alike our interpretation and our comprehension." *

In astronomy the law of gravitation explains many things, but who shall make plain to us the mystery of that perpetual miracle—gravitation?

In chemisty "chemical affinity" and "atomic laws" give us the clew to nature's handiwork, but who has ever written the story of these mystic loves and hates, attractions and repulsions?

Whence the "vital principle" in the seed? Ask the botanist, and what answer has he to give?

Whence the wonderful properties of the ether upon which the physicist pins his faith? Can the physiologist or biologist point out the secret springs of "life," or give the explanation of "vital energy"?

Go where you will, it is always the same. "Hemmed in by the impassable limitations of a restricted experience and of a no less restricted faculty of reason, we find the finite radius of our science touching in every direction the shadowy universe of

* Wm. B. Taylor, "Physics and Occult Qualities," address before Philosophical Society of Washington, 1882.

nescience; and where most we seem to know, there most we encounter the cloudland of the unknowable." *

And in the nature of things, this must be so. Says Roger Cotes in his Preface to the "Principia": "Since causes naturally recede in a continued chain from the more compounded to the more simple, when the most simple is reached, no further backward step is possible. Hence an ultimate cause cannot admit of any mechanical explanation, for if it could, it would by that very fact cease to be ultimate." So speaks the mathematician.

And again, the metaphysician, Sir William Hamilton: "As each step carries us from the more complex to the more simple, and consequently nearer to unity, we at last arrive at that unity itself, at that ultimate cause which as ultimate cannot again be conceived as effect."

And again, the philosopher, Herbert Spencer: "It obviously follows that the most general truth, not admitting of inclusion in any other, does not admit of interpretation. Of necessity, therefore, explanation must eventually bring us down to the inexplicable. The deepest truth which we can get at must be unaccountable."

The deepest truth which we can get at must be unaccountable! Such is the concurrent testimony of mathematician, metaphysician, theologian and philosopher, and such, I repeat, is the lesson taught by every department of science. And is not this precisely what we should expect to be the case in a universe governed and ordered by superior mind? Were this not the case, we might expect the circle of our knowledge to return again into itself, full, rounded, satisfying and complete. But such is not the case. As we follow back the chain of causation from complex to simple, we come to a point where continuity suddenly ceases—the accountable invariably brings us face to face with the unaccountable—certain knowledge but leads us ever and always to the inexplicable—the known confronts us ever with the unknown. Go in what direction we will, the circle never returns within itself, but every path leads directly to the incomprehensible—to a point where progress ends—and

* Wm. B. Taylor, "Physics and Occult Qualities," address before Philosophical Society of Washington, 1882.

face to face with this ever-recurring mystery—that same imagination which has led the man of science to more than one bold and noble induction must perforce make one more leap and "look up through nature unto nature's God."

This I take to be the teaching of nature herself, apart from any and all other revelation. As one wiser and more eloquent than I has well put it: * "The mind thus baffled and bewildered in its backward quest through illimitable series, in which, to its dismay, is found at no great distance—whether in atom or in universe—the chasm of a great and incomprehensible discontinuity, the inevitable transition to an entirely different order of links from that made thinkable by experience, seems driven in the last resort to the unifying induction of a single, first, eternal and all-powerful cause.

"This ultimate and highest induction of scientific thought—the inscrutable made absolute—is restful and satisfying. This ultimate and highest induction, as highest and ultimate, cannot be manipulated as a 'working hypothesis.' This ultimate and highest induction, as such, cannot be subjected to the subsequent verification of mathematical deduction. This ultimate and highest induction detracts nothing from the certainty of orderly sequence so irresistibly impressed upon us by every deepening channel of research, but gives us rational ground and guarantee of such unfailing regularity. This ultimate and highest induction, accepting to the uttermost the mechanical interpretation of nature's administration, gives significance to our conception of a regulated system, and accounts consistently for the unfaltering obedience of all the countless atoms of the universe to the reign of 'law' by positing behind such law an Infinite Law-giver."

My friends, it seems to me that in these days of the "new dark ages,"

> 'When the bat comes out of his cave
> And the owls are whooping at noon,"

the greatest debt we owe to science, apart from all she has done or is doing for our bodily comfort and our mental development, is for the lesson of faith she is thus ever teaching us—faith in

* Wm. B. Taylor—in address already quoted.

the invisible and intangible. The lesson that reason and faith, intellect and emotion, must ever go hand in hand; that poetry and science are twin sisters; the lesson that man can never feel sure of attaining absolute knowledge—that the "pure truth" for which he yearns is not for him; that just so surely as he walks by reason, and by reason only, just so surely he must reach a point where reason halts and waits on faith. That the only essential difference between scientific and Christian faith is, that while the one finds its justification in the limited experience of the bodily senses, the other finds, in addition, a higher justification in the experience of the soul, and that both experiences are trustworthy guides.

And in view of this, is it not indeed well for man that absolute knowledge should be for him thus unattainable? That he should be gifted with this

> "Spirit yearning in desire
> To follow knowledge like a sinking star
> Beyond the utmost verge of human thought"?

That he should ever seek and strive and long for truth, and be forever doomed to seek and strive and long in vain? In the memorable words of one of Germany's great poets and scholars, "If God held all truth shut in His right hand, and in His left nothing but the ever-restless instinct for truth, though with the condition of forever and forever erring, and should say to me, Choose! I would bow reverently to His left hand, and say, Father, give! Pure truth is for Thee alone!"

Why, "to know everything would be to learn nothing; to be deprived of the highest, purest pleasures this earth affords; to have no hopes, no lofty desires, with consciousness worthless and volition a farce!" But more than all this, and beyond all this, it would be to lose the daily testimony of science to the efficacy of faith [the strongest proof of the validity of the Christian belief].

For how does our Christian belief essentially differ from the scientific? Like science, it has reason for its guide, and like science, too, it finds that reason must go hand-in-hand with faith. This faith, like science, it bases on experience and on cumulative proof no whit inferior; and like science, too, analogy leads it on to speculations which are found to accord with all we

know. But here, and in this one thing, it differs ; it adds faith to reason, and to faith love and hope—that hope which dares to feel,

" altho' no tongue can prove,
That every cloud that spreads above,
And veileth love, itself is love " ;

that hope which, amidst all the wranglings of science and all the polemics of theology, can look up and say, with all the serenity of a confidence that cannot be shaken :

" Our little systems have their day ;
They have their day, and cease to be :
They are but broken lights of Thee,
And Thou, O Lord, art more than they " ;

that hope which, like science, is based upon faith, but which, unlike science, transcends experience ; that hope which science does not impart, and which science cannot destroy—which, rising triumphant from the depths of sorrow and despair and the ashes of bereavement, can gaze unterrified through even the dark portals of death itself, and, with all the confidence of radiant conviction, exclaim :

" That nothing walks with aimless feet,
That not one life shall be destroyed,
Or cast as rubbish to the void,
When God hath made the pile complete."

PROF. EDWARD J. HAMILTON, author of " The Human Mind, a Treatise on Mental Philosophy," and other works, spoke as follows at the close of Prof. DuBois's lecture:

The beautiful discourse to which we have now listened illustrates the true tendency of all earnest scientific thought. Strictly scientific—eminently scientific—composed by one devoted to scientific, as distinguished not only from theological, but also from philosophical, pursuits, it exhibits the man of science as also logically the man of God; it shows how the investigation of causes leads to the First Cause; and how a study of the laws of the universe brings one, at last, before the Law-Giver and His great white throne.

To me the discussion of Prof. DuBois has been the more instructive because it has been based on a theory of thought and

knowledge which I find myself unable to accept. The associationalist logic of Mr. John Stuart Mill, though never fully approved of by metaphysicians, has commended itself to the physical investigators of the present century, and is that now generally quoted in scientific circles. The majority of our professors find the practical part of Mill's logic well suited to their needs ; and so, without that careful questioning which they give to their own problems, they naturally imbibe certain metaphysical principles which are by no means necessarily connected with the rules for inductive research.

The discussion of this evening, which does honor alike to the head and to the heart of its author, may illustrate what I mean. Arguing clearly on the basis of the associationalist logic, Prof. DuBois has shown that philosophical and religious truth must and do rest ultimately on the same kind of evidence, and that the logical completion of scientific theory and system is a reverent belief in God. The conception of this argument, its development and its conclusion, commend themselves to us all. Nevertheless I, at least, have the feeling that the reasoning of to-night's discussion would have had more solidity, more essential (as distinguished from relative) value, if it had been founded upon the logic of Aristotle rather than upon that of the modern philosopher.

The fundamental doctrine of Mr. Mill is that all proof—that is, all proof of general principles—rests exclusively on experience; and experience, with him, is simply the observation of historical fact. All philosophy is merely the generalization of facts as these have become associated with each other in our minds by being repeatedly observed together, without any objective, or real, perception of a necessary connection between them. This system has been styled *Empiricism*, because it rests on ἐμπειρία or experience. By some, also, it has been called Experientialism. Aristotle, on the contrary, held that all knowledge originates in αἴσθησις, or perception; so that his system might be styled *Perceptionalism*. This, too, was the doctrine of Locke. To me it is self-evident that the observation of mere fact, however accurate, cannot give a knowledge of principle. There must also be a certain power of cognitive judgment by which to

apprehend the necessary, or logical, relations of fact—a power, the exercise of which seems especially evident in our recognition of axiomatic truth. Perceiving a necessary sequence or connection in an individual case, perceiving also that in any other case essentially similar a similar necessity must exist, we intuitively form an axiom. This is not an induction from experience; it is the immediate perception of a law that is absolute and ontological.

When this axiomatic mode of judgment is employed alone, the resulting development is that demonstrative, or apodeictic, knowledge, to which we ascribe an absolute certainty. We might, indeed, according to the supposition of Helmholtz, imagine a race of beings whose knowledge should be abirtrarily limited to spherical surfaces and lines; and undoubtedly the geometry and trigonometry of such beings would be wholly spherical. But would this prove any defect or fallibility in the nature of rational perception? Would it not rather show that Reason, because of her invariable nature, varies in her utterances according to the truth of the matter placed before her? *Nam nunquam decipit Ratio, neque decipitur unquam.*

In addition to demonstrative science, there is the experimental, in which the observations of Reason, being subjected to her axiomatic principles, are made to reveal, more or less clearly, the instituted laws of the universe.

Now the associationalist logic, which is utterly at fault in regard to axiomatic and apodeictic perception, is also unsatisfactory in its philosophy of induction. For this latter mode of thought is only imperfectly explained when it is said to rest on the assumption, or hypothesis, of the uniformity of nature.

Two sets of rules, and two styles of judgment, are constantly used by the scientific mind; and these must be distinguished by those who would obtain a correct understanding of the logic of physical investigation.

First, there are the *Canons of Induction*, or the rules of inductive decision. These are axiomatic. They are specific developments of the ontological law of cause and effect. They apply the truths that no change takes place without an exercise of power—that power acts only under conditions—that an event

cannot take place if any of its conditions be absent, and that it must take place if all its conditions be present—that similar events follow similar exercises of power attended by similar conditions, and dissimilar events dissimilar exercises of power—also, that a combination of events involves a combination of causes and that an increase or diminution of effect corresponds to an increase or diminution of causal action. Anyone who scrutinizes Mr. Mill's "*methods*" of agreement—of difference—of agreement and difference—of residues—and of concomitant variations —will perceive that the foregoing explanation of them is the correct one.

The second class of principles which scientists use may be styled the *Maxims of Induction* or the rules of scientific suggestion. They are not axiomatic, nor, in any proper sense, ontological. They are cosmological conclusions which men spontaneously form when they find that, as a matter of fact, every part of Nature to which they have access is the subject of intellectual government. Several of the maxims of scientific investigation have been mentioned this evening; and they have been rightly characterized as beliefs in a supreme and all-controlling intelligence. In particular we have been told that the course of Nature is stable and uniform, and that analogies, or similarities of method, abound in the structures and in the operations of Nature. In addition to these fundamental thoughts the physical investigator is guided by his convictions that Nature always prefers the simpler to the more complex method (if the former be equally efficacious)—that Nature not only makes permanent combinations of qualities, but also indicates these by permanent and reliable signs—that Nature, though lavish of her supplies, is parsimonious of her instrumentalities, accomplishing the greatest number of ends by the fewest devices—and, finally, that Nature does not act without a purpose, but is governed by wise design, every organ having its function and every part its place. In one sense these principles may be regarded as assumptions by the man of science; he certainly assumes them as true at the beginning of his work; but they are really the conclusions of Reason upon discovering, in the workings of Nature, the manifestation of an intelligence similar to her own.

I have especially to thank Prof. DuBois for those parts of his address which assert that the evidence and argument upon which both scientific and religious conviction rest, may, and often do, have an absolutely demonstrative force: such is their actual operation, explain them on whatever theory you please. And this being the case, perhaps the professor will agree with me in holding that *no such difference exists between faith and knowledge; that faith cannot be knowledge, or knowledge faith.*

Here let me guard against misapprehension. The faith of which we are now speaking is not religious or saving faith, but the philosophical or speculative. Prof. DuBois in his address was strictly scientific; the remarks which are now being made are intended to have a purely logical significance. Religious faith is practical confidence in truth concerning divine things and in God and His promises, as revealed to us in that truth. In cherishing this faith many a believer has attained spiritual knowledge, and has been able to say, "I know that my Redeemer liveth; I know whom I have believed." But the faith of which we now speak is simply intellectual belief in things that are intangible and invisible, whether they belong to the present or to a future state of existence, or to both.

Now this faith—this belief in the unseen—cannot, in my judgment, really exist except on evidence, probable or apodeictic. Faith without evidence is delusion; it is no faith at all; at least it is not that kind of belief to which we are called by true science and by true religion, and which alone is the subject of present discussion. This faith invites us to high and ennobling conceptions, but to conceptions supported by proof; for, if they were not so supported, they would be mere figments of the imagination.

Moreover, not to speak of the historical facts on which Christianity rests, the fundamental truths of natural religion appear to be sustained by the most demonstrative evidence. To me the argument for the existence and the attributes of God seems even stronger than that for the stability of the present order of the Universe. Science affirms that the present state of things has had a beginning and that it will certainly have an end. Reason perceives that an interruption of the present order, at

any time, would involve no absolute impossibility; in a specific case miracles might even be expected. But the being and the attributes of Deity can be apodeictically inferred from the existence of the Universe and its phenomena, whatever the past history of the cosmos may be, and whatever its future fate.

The full apprehension of this argument and the corroboration of it through realization of one's personal and moral relations to the Divine Being, may be a matter of high attainment, and may require clear and unclouded vision; yet most men, whatever be their mental and moral condition, have some belief in God. Atheism—agnosticism—wherever they exist, are the result either of bad philosophy or of persistent sophistical effort. God has not left Himself without a witness, and, if we do not hear the distinct utterances of that witness, it is only because of deafened ears.

Nor is this any new doctrine; it is the doctrine of the ages. For the invisible things of God from the creation of the world are clearly seen, being understood by the things that are made—even His eternal power and Godhead.

The following paper from PROF. CHARLES W. SHIELDS, of Princeton, in the absence of the Professor, was read by the Rev. Edward M. Deems, of Hornellsville, N. Y.

Professor Dubois has shown very clearly that physical or empirical science involves much faith as well as knowledge Permit me to add the complemental truth, that metaphysical or religious science includes much knowledge as well as faith. Let us compare the two regions of inquiry in these respects.

On the one hand, we find that physical science involves much faith. It involves faith in an assumed uniformity of nature, which has not been proved, which never can be proved, which is even disproved whenever you perform the miracle of lifting a stone from the earth. It involves faith in an assumed accuracy of our cognitive faculty which the sceptic denies, and which, in fact, has been belied by ages of mistake and error. It involves faith, at length, in some ultimate power or principle as upholding this believed uniformity of nature and this believed accuracy of our cognition; and, at last, that ultimate power or principle

is so sheer a matter of faith that the strictest scientists exhibit it to us as unknowable and largely inconceivable. All physical knowledge is thus upheld by implicit faith.

On the other hand, metaphysical science includes much knowledge. It includes an intuitive knowledge which seizes reality itself, which bears the signature of universal and necessary truth, and which not even a miracle could destroy, since omnipotence itself cannot make two and two less than four. It includes revealed knowledge which has been communicated from a divine intellect, which the human reason recognizes as reasonable, and which expresses absolute reason itself. And it includes empirical proof of this revealed knowledge which has been accumulating through thousands of years, which has been tested by the searching criticism of every epoch and generation, and which equals the best reasoned science in the kind if not in the degree of its certitude. All religious belief thus embraces more or less of crude knowledge.

Now, if it be true that religion involves more faith than knowledge, as it is true that science includes more knowledge than faith,—yet it is also true that the two logically require each other and must stand or fall together. Test the matter mentally. On the one side, take away religion from science ; and you will see it falling into superstition and speculation. Its towering fabric of systems and dogmas, though built upon a foundation of divine knowledge, will crumble away in the fires of experimental science, disclosing wood, hay and stubble, as well as silver, gold and precious stones, then, on the other side, take away science from religion ; and you have what is called agnosticism. But trace agnosticism to its issues in the sphere of science itself. Resolve to accept nothing which you cannot know on scientific grounds and with scientific evidence. Bring before you the whole imposing structure of physical science and test logically its hidden foundations. Though it be the most certain and solid seeming knowledge that we possess, you will see, as Professor Dubois has shown, that it rests upon an assumed uniformity of nature which has not been demonstrated and is not demonstrable. You will find that it proceeds upon a covert ratiocination which the sceptic can tear to shreds before

your eyes. And you will at length reach its ultimate postulate in a confessed absurdity, in a demonstrated contradiction of the Infinite with the Absolute and of both with the Finite. In a word, your whole science, at its goal, will collapse in conscious ignorance.

This has been the actual result of agnosticism in religion; and it is the logical result in science. The simple fact is, that real science can have no rational support and consistency unless it be based upon religious faith,—not merely upon scientific faith in our cognitive faculties and in the order of nature, but upon religous faith in God as the author of the one and the upholder of the other. The bottom truth in science is the truth of religion.

REV. DR. DEEMS said, in substance: It seems important to have a satisfactory definition of knowledge. What is its basis? Simply the ability *to perceive* as Locke seemed to think? He made knowledge to consist in the perception of the truth of propositions. But, how do we *know* that we perceive *truly* or truly perceive *what is true?* Is not our knowledge at least dependent upon our faith in our faculties and in the external existence of the things supposed to be known? Was not Ptolemy's knowledge of astronomy what he *believed?* Was not Copernicus's what *he* believed? Bacon used the word in the plural, "knowledges," and Sir Wm. Hamilton approved the use and wished it revived. May I venture a definition of knowledge? *Knowledge is what a man believes to be the agreement or disagreement of his ideas.* Or, the same thing in other words, *Knowledge is belief in certain affirmative or negative propositions.* Is that agreed to? [There seemed to be an acceptance of this definition.] Then there may be belief without knowledge, but not knowledge without belief

THE STUDY OF SOCIAL SCIENCE IN THEOLOGICAL SEMINARIES.

[Delivered before the American Institute of Christian Philosophy, March 1st, 1892.]

By Rev. W. F. Blackman, Ithaca, N. Y.

IS there a Social Science? That question I shall not now discuss. This, at any rate, is certain, that the relations which men, as members of manifold civic and social groups, sustain to one another, are capable of being investigated and formulated as principles, as also of being criticised and amended. This is certain, too, that the study of these divers relations, and the suggestions and efforts which are being put forth toward their rectification, are exciting nowadays and everywhere the liveliest interest. And on the basis of these two certainties, I venture to affirm that the topics commonly denoted by the term "Social Science" ought to have a considerable place in the curriculum of the theological seminary.

Before going on to urge some reasons for this affirmation, however, it may be well, as conducing to clearness of thought, to present a summary statement of the subjects which ought to be included in such a course of instruction. They seem to me to be such as the following:

COURSE OF INSTRUCTION IN SOCIAL SCIENCE.

1. The Principles of Anthropology.

2. Human Society, its Nature and Basis; Individualism, Socialism, Communism, Anarchism.

3. The Family; Position and Rights of Woman; Divorce; Social Purity.

4. The State; its Nature, Origin, Forms and Functions.

5. Man's Relation to the "Land."

6. The Equities and Iniquities of Taxation.

7. "Democracy in America"; Ethics of Party Government; the Franchise; Ballot Reform; the Civil Service.

8. Races in the United States; the Indian ; the African ; the Chinese; Immigration.

9. Secondary Education; Public, Private, Parochial, Compulsory, Moral.

10. "The Industrial Age," its Characteristics and Needs.

11. "The Modern City and its Religious Problems."

12. The Aggregation in Factories of Men, and Women, and Children ; the Influence of such Aggregation on the Home, the School and Society.

13. The Wage System ; Relations of Employers and Employees ; Labor Laws and Bureaus ; Trades Unions ; Coöperation ; Profit Sharing.

14. Social Classes, specially the Defective, Dependent and Delinquent ; Crime, its Causes, Prevention and Cure ; Pauperism.

15. Charity and Charity Organizations.

16. Thrift ; Building and Loan Associations ; Penny Provident Funds ; School, Postal and other Savings Banks.

17. Physical Habits and Inheritances.

18. Sanitation of Dwellings, Factories, School Houses, Streets, Cemeteries.

19. The Economic and Social Value of the Sunday Rest.

20. Amusements, Wholesome and Hurtful.

21. Commercial Ethics ; Gambling ; Adulteration of Foods and Fabrics.

22. The Liquor Traffic, its Political, Economic and Social Character.

23. The Printing Press ; Influence and Ethics of Authorship and Journalism.

24. Private Wealth, its Increase, Opportunities and Obligations.

25. The Christian Church as a Social Influence ; State and Free Churches ; Denominationalism ; "Institutional Churches"; the Parish House ; the "People's Palace"; City Missions ; the Salvation Army ; Societies of Ethical Culture ; University Settlements and Extension.

26. The Elements of International Law ; War ; Arbitration ; Federation.

27. Social Conditions in Mission Fields.

28. The Sociological Teaching of the Old and New Testaments.

29. The Sociological Interpretation of Ecclesiastical and Secular History.

30. The Literature and Bibliography of Social Science.

31. Statistics, and how to deal with them.

If it be objected at this point that the subjects here enumerated are so many and intricate that very little could be done with them in the brief time that could be secured for their consideration, the fact must be conceded; only a little is expected to be done. But a little leaven, timely and skilfully mixed in, "leaveneth the whole lump." It is believed that the student could at least have his eyes opened to certain important matters otherwise hid from him, and be taught to look outward and forward as well as within and behind. The sociological interest and habit of thought could be excited within him. He could be showed the nature and limits of the field. If problems could not be solved, they could at any rate be set, correct methods of working upon them inculcated and trustworthy sources of information respecting them—whether literary or living—pointed out.

And such is the imperative fascination for most minds of these themes, when once taken up, that they would inevitably and profoundly influence the student in all the other studies of the seminary, and lead him on after graduation to their more thorough consideration.

The study of social science in the seminary would illuminate and enrich other branches of theological instruction. It would do so by providing a new standpoint. Let it be remembered that men see, not what is before their eyes, but what they are looking for. In the several fields of theological discipline there have always been some extremely important sociological facts, but these have not generally been discovered by students—unless I greatly misjudge—and for the reason that they and their teachers have been on the lookout for other things. But let a young man go from an hour's study of the State, or the fundamentals of Civil Law, or the Family, to an exercise in Biblical Theology—in the field, let us suppose, of the Pentateuch; he

would find himself amid social and political institutions, original, complex, skilfully contrived, and pregnant with unborn civilizations. Here are a federation of free States, legislative bodies chosen by popular vote, a constitutional executive, and a judiciary with inferior and superior courts. Here are laws and usages respecting and tenure, taxation, inheritance, servitude, debt, interest, theft, trespass, health, relief of poor, marriage, chastity, and manifold other such matters. Here are such institutions as the Year of Jubilee, which has been called "the most exalted piece of statesmanship the world has known—an example of social sagacity and broad, far-reaching wisdom, such as we look for in vain in the annals of any other nation."* Here are great and vital principles of civil liberty such as these: "That government is instituted for the good of the many, and not of the few. * * * that the people, either directly or by their representatives, should have a voice in the enactment of the laws; that the powers of the several departments of government should be cautiously balanced; that the laws should be equal in their operation, without special burdens or special exemptions; that the life, liberty and property of no citizen should be infringed but by process of law; that justice should hold an even balance, neither respecting the persons of the rich, nor yielding to the necessities of the poor; that judicial proceedings should be public, and conducted in accordance with established rules; that every man who obeys the laws has a right to their protection; that education, embracing a knowledge of the laws, the obligations of citizenship, and the duties of morality, should be universal, and that whatever is valuable in political and social institutions rests upon the intelligence and virtue of the people."† The student would find himself face to face, in that early time, with "the questions of the day." The problems of higher criticism,

*Theodore T. Munger, *The Freedom of Faith*, p. 178.

† E. C. Wines, *Commentary on the Laws of the Ancient Hebrews*, p. 117. See also J. L. Saalschütz, *Das Mosaische Recht*. "If we could but have the eyes to see the subtle elements of thought which constitute the gross substance of our present habit, both as regards the sphere of private life, and as regards the action of that state, we should easily discover how very much besides the religion we owe to the Jew." Woodrow Wilson, *The State*, p. 144.

fascinating and fruitful as they are, could no longer engross his whole attention. Literature would yield to life. Bringing to the study of the Pentateuch a mind alert to every political and social suggestion, he would discover a charm in pages otherwise dull, and a new meaning everywhere, and would carry thence to his pulpit such wisdom as this age and land especially need.

Or if the biblical work of the student of social science should chance to be appointed in the prophetical books of the Old Testament, a like result would follow. Approaching these writings from a new standpoint, they would no longer seem to him chiefly of philological and exegetical, or literary and critical, or even theological and devotional, interest. The Hebrew prophets, he would see, were especially politicians, men

> " divinely taught, and better teaching
> The solid rules of civil government
> In their majestic, unaffected style,
> Than all the oratory of Greece and Rome.
> In them is plainest taught and easiest learnt
> What makes a nation happy and keeps it so,
> What ruins kingdoms and lays cities flat."*

His mind would be instructed by their conception of the State as a living organism rather than a collection of individuals bound together by a social compact, and as having a unity not merely racial, or linguistic, or territorial, or commercial and fiscal, but of the divine appointment and indwelling. His spirit would be invigorated by the intense patriotism which throbs in all their speech. And his homiletic method would be influenced by their ceaseless emphasis on righteousness as the condition of national perpetuity and prosperity, as well as by their fearless rebuking of sinful kings and such as swallow up the needy and cause the poor of the land to fail.

The introduction of social science into the theological course would also prove a great aid in the interpretation of the New

* Milton, *Paradise Regained*, IV., 356–363. See also S. T. Coleridge, *Statesman's Manual;* F. D. Maurice, *The Prophets and Kings of the Old Testament*, preface to the third edition, p. 16, and *passim;* Sir Edward Strachey, *Tracts for Priests and People*, series II., No. 10, and *Jewish History and Politics in the Times of Sargon and Sennacherib;* B. Disraeli, *Life of Bentinck*, p. 81; E. Mulford, *The Nation*, p. 410.

Testament. It has happened that to many—myself among the number—a new and bright light has come from the life and doctrine of Jesus and His Apostles, when they have approached these from the study of social laws and forces and needs. And that illumination which they have received outside seminary walls ought to be vouchsafed to all who are still within them. The preparation of the world for the advent of Christ—Grecian, Roman, Hebrew ; the Diaspora ; the birth of our Lord as by intention in the midst of an event so entirely secular and political as the taking of a census of the Roman Empire ; His dealings with the woman of Samaria, the Canaanitish woman and her who was taken in adultery, and with the Roman centurion and "certain Greeks"; His curing of the sick and feeding of the hungry ; His refusal to be a judge and divider of patrimonies ; His scourging of the money-changers from the temple ; the sorrowful turning away of the rich young man ; Peter's house-top vision ; the first preaching of the Gospel in Europe and the results thereof; the practice of charity and communism in the early Church ;—these are some of the incidents related or referred to in the New Testament which have a larger meaning for one who is familiar with the subjects I am here commending. So also have such New Testament doctrines as those of the Kingdom of Heaven, the Headship of Christ, and His immanency in all life and law; the Solidarity of the Church; the Divine Ordination of the Powers that be; the Duty and the Dignity of Labor; the Stewardship of Wealth; the Idolatry of Covetousness; the Sacrifice of the Body; the Palingenesis, and the New Heavens and the New Earth. And so, too, have such passages as "the three great original, primary proclamations of the purport of His Gospel by the Author of it, viz.: the Beatitudes, His initiatory sermon at Nazareth, and His message to John the Baptist as to why He had come and what His idea of preaching was—as well as John's own radical deliverances, and the Virgin Mother's equally socialistic song of her Divine Son's forthcoming ministry and mediation";* the Lord's Prayer; the vision of the Judgment in Matthew; the Great Commission; the parables of the Leaven, the Unmerciful Servant, the Good Samaritan, the

* Bishop F. D. Huntington, *Homiletic Review*, April, 1891, p. 301.

Rich Fool, the Unjust Steward, the Creditors and Debtors, and the Rich Man and Lazarus; Paul's portraiture of the heathen world and his charge to Timothy; the Epistle of James; and John's vision of the Holy City coming down from God out of Heaven. There is much of wisdom, both for students of social science on the one hand and for students of Christian theology on the other, in Rudolph Todt's familiar epigraph: "Whoever would understand the social question and contribute to its solution must have on his right hand the works of political economy and on his left the literature of scientific socialism, and must keep the New Testament open before him."*

In like manner, familiarity with social science would enrich the study of Church History. Hitherto this discipline has occupied itself too much with matters theological and ecclesiastical. It is chiefly of polity and dogma, and the disputes by which these have been developed, that the student has learned. The influence of the Church on the intellectual, moral, social and political life of the centuries and regions in which it has wrought —incomparably the more important topic—has generally, until of late, received scant attention. It is a chief excellence of one of the most recent, and the best of treatises in this field, that it fulfils the promise implied in its preface: "I have tried to bring out more distinctly than is usually done the interaction of events and changes in the political sphere, with the phenomena which belong more strictly to the ecclesiastical and religious province."† It is not possible, however, for the student to appreciate the full significance of many passages in the history of the Church, unless his mind has first been exercised in sociological inquiry. The teaching of the fathers concerning private property; charity in the early Church; the influence of Christianity on the Roman law; the relations at various periods and in various

* Motto of *Radical German Socialism and Christianity.*

† Prof. G. P. Fisher, *History of the Christian Church.* See also C. Schmidt, *The Social Results of Early Christianity;* J. G. W. Uhlhorn, *The Conflict of Christianity with Heathenism,* and *Christian Charity in the Ancient Church;* W. C. Morey, *Outlines of Roman Law,* pp. 143–152; C. L. Brace, *Gesta Christi;* R. S. Storrs, *The Divine Origin of Christianity Indicated by its Historical Effects;* F. W. Farrar, *The Witness of History to Christ;* D. J. Hill, *The Social Influence of Christianity.*

places of Church and State; monasticism; the mendicant orders; clerical celibacy; the principles and influence of the Jesuits; Feudalism; the Crusades; the Reformation; the French Revolution; the disintegration of the Church into sects, and subsequent tendencies toward re-integration or federation; the abolition of private war, the wager of battle, the ordeal, the duel, torture, piracy, slavery and serfdom; the influence of the Gospel on the position of woman and childhood, and on education, literature, physical science, invention, industry and thrift; biographies like those of Telemachus, Savonarola, Gustavus Adolphus, William of Orange, Oberlin, Chalmers, John Howard, Elizabeth Fry, Florence Nightingale, William Wilberforce, David Livingstone and Charles Kingsley;—these are some of the topics of Church history or related thereto, which have new meanings for one who has become alive to the importance and fascination of social studies. If it were permitted me to re-enforce this assertion with a personal experience, I should tell how it once fell to my lot to go over afresh, after a somewhat careful investigation of the land and labor problems of our time, the story of the *Bauernkrieg* of 1525; and how the actors in that scene, three centuries dead, sprang to life again as I read. The absentee landlord, the oppressed and over-taxed peasantry, the leagues and alliances for agitation, the "walking delegate," the noisy demagogue, the judicious leader, the ignorant and cowardly priest;—here they were, all of them, alive and struggling together. Here, too, were stubborn vested wrongs; and, a little later, pillaged and ruined castles and profaned tombs, and devastated and bloody fields. These had all been there before, but I had never seen them there, nor learned the vivid lessons they teach our time till new eyes were given me in the way I have described.

This, then, is the first reason for the introduction of social science into the theological curriculum, that it would serve to enrich other branches of instruction, especially the Biblical and historical, by furnishing a new standpoint and interest.

And this interest and standpoint are not only new but needed. He who is preparing for the ministry of the Son of Man, in whatever age or region of earth, ought to pursue such studies—among

others—as will put him in touch with his time. Whatever tides of thought are setting, this way or that, he ought to feel their tug upon his mental craft. The minister must not be an anachronism. He needs to be a timely man and speak a timely message. It has always been the strength of the real prophets—of those old Hebrews, Moses and Elijah and Amos, and Paul on Mars Hill, and of the Luthers and Beechers of later time—that they have felt what were the characteristic thought, struggle, sin and value of their own day, and have keyed their message accordingly. It has been one weakness of weak preachers, that they have spoken not to living men, but mostly to men a generation or two dead and hardly, therefore, in a position to be much profited by their speaking. It is well for the seminaries to sense the Past; it is fatal for them not to sense the Present and the Future. But who that does not live wholly in books or dreams can fail to see that the questions for our day and the next are the questions social and industrial, and that these questions are all of them at bottom moral? Whoever will review the last two decades, and will set himself to prepare a catalogue of the Commissions and Bureaus of Labor, Health, Charities and Corrections which have been established in the United States during that period; * of the laws passed relating to these and kindred matters; of the voluntary societies organized for the discussion of social subjects and the management of charitable and reformatory enterprises; of the books published in all departments of literature, devoted to these subjects, and having a circulation in the case of a single author† of nearly half a million copies; of the hundreds of periodicals founded and maintained for a like purpose; of the amount of space given to these themes in such journals as the *Forum*, the *North American Review*, *Public Opinion* and the *Christian Union*; of recent and significant political events, such as the formation of the Prohibition and People's Parties, the candidacy of Henry George for the mayoralty of New York, and the recognition of social and industrial issues in all party platforms; of the trades' societies established; of the utterances concerning these matters evoked from religious

* They number, I think, about 80.

† Henry George.

leaders, such as the Pope's last Encyclical, the pastoral letters of many Bishops, and almost countless deliverances in the conferences, congresses and clubs of the various denominations; and finally, of the numerous and superb benefactions of wealthy men,—whoever, I say, undertakes merely to catalogue these recent happenings and others of like import, will be persuaded that the pressing questions for to-day are those that belong in the sphere of social science. I am not sure but he will come to agree with Richard Rothe (using the word "political" in its widest meaning), when he says: "I do not for a moment doubt that the Lord Jesus Christ has a far deeper interest nowadays in the development of our political condition than in our so-called Church movements and questions of the day. He knows well which has the more important issue behind it." * And even if such a comparison seem needless and misleading, he will, at least, be convinced that the schools where the future ministry is in training ought to provide careful instruction in these subjects which are exciting the mind and the moral sense of our time as no others are.

Christian ministers are in some respects peculiarly well fitted to exert a wholesome influence in the settlement of these questions. Their minds have been disciplined by long study. As compared with business men, they are freer from the narrow opinions and prejudices engendered by personal interest. Being in constant and sympathetic contact with all classes, they survey the whole field. As compared with economists, politicians and journalists, they are less partisan in temper and occupy a higher ethical standpoint. From the five sorts of bias enumerated by Herbert Spencer as impairing sociological judgment †—the bias of education, of patriotism, of class, of politics and of theology—the Christian ministry is more nearly exempt than any other body of men. This is beyond question true of the first four; I think it is true of the fifth. Moreover, they have access to all minds for purposes of instruction, and so are able to mediate between conflicting classes and interests. What wealth could not say to the poor, and poverty to the rich, through their own

* *Still Hours*, p. 332.

† *The Study of Sociology*, Chaps. viii.–xii.

lips, without being misunderstood, they can say through a pastor esteemed by both.

These qualifications of the ministry for leadership in social morality are neither few nor slight. But it must not be forgotten that clergymen are, on the other hand, peculiarly liable to make mistakes of a certain sort in these matters. Their enthusiasm for moral ideas, the keenness of their sympathy with suffering, the dominance in them of the ideal, their lack of practical business training, and of acquaintance with the crafty and unscrupulous spirit of the world, are likely to commit them to schemes of relief or reform which are Utopian. Ever there is being proposed some charitable enterprise which is full of pathos, but full also of mischievous influence, or some new and inviting short-cut to the millennium which wholly mistakes the location and approaches of that "happy land." It is, indeed, greatly to their credit that ladies and ministers take kindly to all such proposals; nevertheless, what is especially needed in these days is searching criticism and scientific readjustment of charitable and reformatory programs. And in this work it is fit that the Christian ministry should lead; but lead they cannot, unless they have learned to understand the complexity of the facts and forces involved, to appreciate the difficulties in the way, and to reckon with those laws of human nature and of social life which, however ruthless they may sometimes seem, are no more to be repealed or evaded than the law of gravitation. They must also have learned what methods of procedure have been proved by experience most wise. And to have learned these things is to have studied social science.

If there were space, I should like to argue four further points, which I can here only state: (1) That the study of social science by theological students would prepare numbers of them for special work in the slums of our great cities and in charity organizations; (2) That it would help them to draw back the multitudes of workingmen who are being alienated from the Church; (3) That it would fit them for ministry to the rich, giving them larger influence in directing wisely the immense outflow of benefactions which the future is sure to witness; and (4) that it would save to Christ and His Church the moral leadership which

already appears to many to be passing over, in considerable part, to societies of ethical culture and reform, and to fervid preachers of socialism.

The question now arises, how much the seminaries are already doing along these lines. That is the question which I lately put to them in a circular letter. Prompt and painstaking replies were received from about forty, of various denominations, in all parts of the country. And of those replies this is the substance: a very few of them—only three or four—display entire indifference to the whole subject; a considerable number are interested, more or less, but are wholly without facilities of instruction; in many, the professor of systematic theology and the professor of homiletics—one or both—give some confessedly inadequate attention to these matters; in a half dozen or more, affiliated with colleges or universities, students may receive instruction in the academic classes; in others, there are occasional courses of lectures by non-resident scholars, covering some of these themes, many of which have been preserved in such excellent volumes as those of Dr. Storrs, President Hill, Dr. Behrends, Prof. Thompson and Mr. Loomis ; * and in still others—perhaps five or six—there is something approaching adequacy of interest and instruction.

From the letters received I excerpt a few sentences, as indicating the convictions which are now finding lodgment in many divinity schools: "I believe there should be a chair of sociology in every seminary" (Congregational); "Among the clergy there is certainly pressing need of instruction on this subject" (Free-will Baptist); "The necessity for such instruction presses upon us" (Presbyterian); "As a teacher of the coming ministry, these matters receive from me emphatic attention" (Reformed-Dutch); "My work has gradually expanded as I have heard the voices of the time accentuating these subjects as important for the ministry" (Congregational); "I am profoundly impressed with the conviction that sociology is a subject which must receive

* R. S. Storrs, *The Divine Origin of Christianity Indicated by its Historical Effects;* D. J. Hill, *The Social Influence of Christianity;* A. J. F. Behrends, *Socialism and Christianity;* R. E. Thompson, *The Divine Order of Human Society;* S. L. Loomis, *Modern Cities and their Religious Problems.*

more thorough attention in our seminaries and in our colleges than it ever has hitherto" (Presbyterian); "We are much interested in this line of study in our seminary, and are looking forward to the time when we can have a professor of sociology" (Baptist); "If we do not have more social ethics in our seminaries and pulpits, I am satisfied we shall have less Christianity and morality in business and politics" (Protestant Episcopal); "It may interest you to know that in our experience we find these questions are especially adapted to enkindle immediate and lively interest; and their free discussion, when guided by a steady hand, tends powerfully to develop skill in the difficult department of probable reasoning, and to beget the dispassionate temper and the painstaking and judicial habit" (Universalist).

All this is abundantly gratifying, especially when taken in connection with the uniform testimony that ten years ago there was comparatively little interest, and almost no instruction, in these themes in our seminaries. But a review of these letters confirms me in the opinion, formed on other grounds, that the work can never be thoroughly done except through a special professorship. It is the general complaint of teachers in other branches, as theology and homiletics, that their instruction in social science and ethics is wholly unsatisfactory to themselves. It must be so of necessity. The field is already so broad and so rapidly broadening; the topics so multiform and intricate; the materials so scattered; opinion both popular and scholarly in such a state of flux; the critics in press and counting-room and workshop so many and so keen; the necessity of correct teaching so urgent; and the effects on the ministry and the churches of injudicious teaching so direct and calamitous, that no one but a specialist ought to be entrusted with a work so difficult and so delicate. Such a man can do much, moreover, outside the classroom. He can converse with students, direct their reading, suggest themes for rhetorical exercises and theses, and form clubs for discussion. He can lead exploring parties into fruitful fields —as missions, schools, tenement houses, shelters, jails, reformatories, asylums, caucuses—and then or thereafter point out the significant features of the life there seen. And, in general, he can pervade the school with an atmosphere which it must otherwise lack.

I conclude, therefore, that no theological seminary can fulfil its mission to the present age except by providing a distinct department of social science and Christian ethics.

I append portions of the letters received from three seminaries in order that their courses may be compared :

1. Hartford Theological Seminary. "The study of sociology was introduced into the curriculum of the Practical Department in 1888. From the first it has been a prescribed study, and this year (1891-2) has also been included in the newly established elective course. In the prescribed course of the senior class twenty-five hours are devoted to sociology. The subject is approached from the sociological conditions of the pedagogical and evangelistic mission and ministry of the Church. The subject is then treated organically along the five lines of development, viz., of the family, economic, social, political and ecclesiastical organisms and their inter-relationships, special attention being paid to the questions of heredity, marriage and divorce; the economic, educational and social functions of the State and Church. The practical application of theory is made in the study of the preoccupying and preventive efforts and agencies of Church, Society and State. The course culminates in the identification of sociological science and effort with the revelation of the Kingdom.

"Of several elective courses in sociology offered this year to the seniors, the one chosen and now pursued is, the rate of wages and the rate of living relatively considered. It requires fifteen hours of class-room work and much reading and original research. The method of study in both courses, but more largely in the elective course, is that of the institute plan, in which topics for independent research are appointed to each, all sharing the results of the labor of each. This enables us to cover more ground in our limited time. The time devoted to sociology in the prescribed course is being increased year by year, and in the elective courses it will be offered along more and more lines and to all classes, as well as to advanced or specialist students each year. Opportunity for field-work will also be opened in the city and the surrounding manufacturing towns. Differentiation being the established policy of this seminary, the plans for the development of the sociological department contemplate the appointment of specialists for the work of research and publication as well as for instruction." See also Hartford Seminary publications, No. 2, "The Practical Training Needed for the Ministry of To-day," by Prof. Graham Taylor.

2. Seabury Divinity School. "Three hours a week during three-fourths of the senior year is given to the study of the social questions of the day. Supplementing this we have a seminary (two hours) one evening of each week, in which we study political economy as a science, using some standard work as a guide and referring to leading writers of all schools. To this seminary all students who may be interested are admitted, whether of the class studying social ethics or not. The opportunities for study and guidance are thus greatly increased. We follow, as far as possible, the seminary method in all our work, and in this part of it almost exclusively. We take up: 1. The Family; 2. The State; 3. Problems arising out of relations of Capital and Labor; 4. Cause of and problems arising from the existence of pauperism and crime; 5. More general topics, such as Education, Municipal Government, etc. The family we treat historically, inquiring into its origin and primeval forms; its place in ancient civilizations; form and character amongst modern non-Christian peoples. Some other topics are: The Christian idea of marriage and family life; civil and ecclesiastical laws governing marriage; Scriptural grounds for divorce; divorce laws of the various States; proposed remedies.

"The State is taken up in a similar way. A few topics—the pre-State condition; historical origin of the State; the theory of force; the theory of contract; Aristotle's theory; how far and in what manner of divine origin; the State in relation to citizens; the economics of the State; the rights of the State to promote morality—will indicate the treatment.

"The treatment of the Labor Question is, in general: 1. Historical view; 2. present condition; 3. remedies. Among the topics discussed are: Slavery, ancient and modern, mediæval serfdom, mediæval guilds, the industrial revolution, labor organizations, strikes, lockouts, trusts, eight hour movement, labor legislation, female labor, child labor, convict labor, Sunday labor, communism, socialism in all its phases, the single tax theory, co-operation, profit-sharing.

"Under Pauperism and Crime come such topics as: Intemperance, housing of the poor, methods of charity, nature and purpose of punishment, prisons, reformatories, industrial education. This is a very general statement, scarcely more than suggestive."

3. Cobb Divinity School. "In 1880 no instruction whatever, such as you name, was given in this seminary. The present course is eminently practical. The historical and theoretical sides of sociology are touched but incidentally in commenting upon facts brought into the class-room. The students are sent

out to study men and the community. I give questions which they are expected to answer at first hand, or nearly so, as a result of enquiries and observation. My questions cover broadly the following lines of investigation: *a.* The history of the community as related to its present social condition. *b.* Present political condition of the community. 1. Organization, form of government, officials. 2. Parties, elections, foreign and class votes, 'machine' electioneering, corruption. 3. Criminal administration, police, courts, prisons, crime, reformation. 4. The poor: Poor farm, public and private charities, tenements, sanitation, vagrants, orphans. 5. Public health: Water, sewers, nuisances, building laws, contagions, inspection, disinfection, registration, burial. 6. The family: Marriage, legal obligations between husband and wife, between parents and children, divorce, the 'social evil.' 7. Public schools: Number, grades, administration, cost, teachers, pupils, parochial schools, private schools, evening schools, industrial—illiteracy. 8. Economics of the city: Public debt, public expenses, taxation, property, municipal works, cost of living, savings, trend of property, corporations, monopolies. *c.* Social institutions. 1. Homes: Owners, building association, tenements, landlordism, slums, un-American customs, the rich. 2. Places of occupation: Chief industries, apprenticeship, promotion, limitations, employments injurious to health, prejudicial to morals, women, children. 3. Organizations: Trades' unions, mutual insurance, secret societies, improvement clubs, philanthropic organizations. 4. Churches: Number, membership, investment, administration, attendance, Sunday-schools, young people, missions, the masses, modern methods, sociability, amusements, co-operation, prayer-meetings, preachers, creeds. *d.* Social influences. 1. The press. 2. Entertainments: Laws, license, censorship, morals—wholesome entertainments. 3. Reading: Public libraries, patronage, etc. 4. Recreation: Base ball, pugilistic matches, horse racing, State fair, amateur photography, entomology, outdoor science, public parks. 5. Public opinion. 6. Society a unit, not an aggregation."

I have received no communication from Andover, which has also given special attention to these subjects. Several articles by Prof. W. J. Tucker in Vols. XI. and XII. of the *Andover Review* may be consulted, outlining an elective course in "Social Economics," with lists of authorities, notes and numerous quotations; as well as recent accounts in the *Review* and elsewhere of the founding of the Andover House in Boston.

In three seminaries of the Protestant Episcopal Church branches of the "Christian Social Union" have been established.

THE COMMON ORIGIN OF MAN.

[Delivered before the American Institute of Christian Philosophy, Aug. 6th, 1891.]

By Rev. Edward M. Deems, A.M., Hornellsville, N. Y.

MODERN men of science are not agreed on an answer to the question, Do all men belong to many or to one species? Authorities on this subject are divided into two schools, namely, polygenists, or those who say that there are more than one species, and monogenists, or those who contend for the unity of the human species.

It is becoming in any one who speaks on this theme in a scientific way to be modest, and avoid dogmatism. The reasonableness of this caution becomes apparent the moment that we are reminded that men of unquestioned scientific repute and ability are found on either side of the question: among polygenists being such scholars as Kant, Buffon, Desmoulins, Hæckel, Friedrich Müller, Louis Agassiz, and Peschal; and among monogenists being Blumenbach, Prichard, De Quatrefages, Cuvier, Max Müller, Prof. Owen and Charles Darwin.

The weight of modern scientific thought and evidence is quite clearly on the side of those who declare that all men belong to one species, that is to say, on the side of the common origin of man. This view is contended for in this essay.

And now, before considering the arguments in favor of the unity of the human species, it is of the utmost importance that the definition of the word "species" be agreed upon; for the solution of the whole problem hinges on the meaning of that word.

M. A. de Quatrefages gives the most concise and satisfactory definition of "species," as the word is used in reference to vegetables and animals, when he says: "The species includes all more or less similar individuals which descend, or may be supposed to descend, from a single ancestral pair in unbroken succession" (Unité de l' Espèce Humaine, p. 54). This definition,

be it observed, when applied to a consideration of men allows room for those variations among them resulting in what are called the "races" of Caucasians, Mongolians, Red Men, Malays and Negroes.

With "species" defined we are prepared to consider briefly the arguments in favor of all men of all races having descended from one ancestral pair, and hence belonging to but one species.

I. The first argument for the unity of the human species to which I direct attention is rooted in the facts concerning the habitat of men.

It would militate against the unity of the human species were it true that one race of men could live only on a certain section of the globe.

The fact is, however, that, if the transition is not made too suddenly, and if proper precautions are taken to guard health, men of any nation can live in the region inhabited by any other nation. The Chinese illustrate and settle this point, for the traveller finds them living on the border of Siberia, where the mercury in the barometer falls in winter to 40° Raumer, and they are also found on the Island of Singapore, almost on the Equator. Taken alone, this argument would be of little or no value; but it becomes important in a cumulative line of demonstration such as we are pursuing.

II. A second proof of our position has been very recently emphasized and is growing in strength. I refer to the unity of the languages of men in their primitive condition, as exhibited in the identity of the roots of many words still in use among the scattered nations.

The accepted divisions of human languages are, the Aryan, the Semitic, and the Turanian. The conclusions which Max Müller reaches on their original unity he thus sums up (Science of Language, p. 340): "Nothing necessitates the admission of different independent beginnings for the material elements of the Turanian, Semitic, and Aryan branches of speech. Nothing necessitates the admission of different beginnings for the formal elements of the Turanian, Semitic and Aryan branches of speech."

And he goes further and shows by the phenomena of the three great classes of language that it is highly probable that

they were originally one. Such eminent philologists as Bopp, Grimm, Klaproth, and Herder, agree with Max Müller in his main position.

It is truly surprising that the argument from language has not been more frequently used in proof of the unity of the human species: for language is a source of information on this subject reaching far back of the most ancient monuments and their inscriptions, and is the one great mysterious characteristic possessed by every man in his normal condition, and belonging to no other animal whatsoever.

It is unjust and unreasonable to ignore the testimony to the unity of the human species of the original unity of human language, and I am satisfied that as the science of language grows it will continue to increase in strength as an evidence of the common origin and hence the unity of mankind.

III. Community of traditions among different and widely separated peoples is another argument fairly advanced by the monogenists.

The creation of man, the Garden of Eden, or its counterpart, man's temptation and fall, the division of time into weeks, the destruction of man by a deluge, and similar traditions are found to be current among people as widely separated in color, location, and everything as the Dyaks of Borneo and the North American tribes of Indians. Now is it not a far greater strain on the intellect to suppose that widely separated races of men happened to hit upon the same traditions than to suppose that these traditions are founded on events which occurred when the members of the one human species were far less numerous and far less scattered than at present?

IV. Yet another argument for the unity of the human species, quite similar to that from community of traditions, is the fact of the community of customs among very different and widely separated varieties of men.

Passing by less important customs let us observe that sacrifices to supernatural beings have been offered in all the different parts of the earth, and by all people, from Greece to Scandinavia, and from China to Africa and to America.

The division of time into weeks and the prevalence of serpent

worship unite Asia, Africa, Europe and America, and bring together people of widely separated ages. Peschal (Races of Man, p. 21, sq.) directs attention to the following customs common to peoples belonging to different races:—Almost all nations have arrived at a single or double decimal system in mathematics ; skin painting and tattooing reappear in every part of the world ; filing the teeth to a point occurs not only in Western Africa but also in Brazil; the skulls of children have been pressed between boards not only by the inhabitants of the Steppes of Southern Russia but also by the aborigines of South America, by the Tshinuks of British Columbia and by the Flathead tribe of Indians in North America. Many nations have practised circumcision, notably Egyptians, Ethiopians, Hebrews, Phœnicians and tribes of Indians in South America. Greeting by rubbing noses is a practice observed not only by the Eskimo but also by aboriginal Australians. Another custom may be mentioned as extending all over the world to representatives of all the leading races of man, namely, the building of cairns or piles of stones which grow by having additional stones thrown on them by every one passing by. The traveller sees these cairns on the mountain tops of Peru and Bolivia. Captain Speke found them also in Africa. They may be seen in India, Burmah, Borneo, Thibet, the Sinaitic Peninsula, Switzerland and Venezuela.

Now, does it not seem incredible that beings of distinct species geographically so widely separated should observe such similar customs ?

V. The next argument is rooted in the physical structure and relations of men.

All men have the same number and kind of bodily organs. The natural position of man is erect. This is true of men of all races. It is true of no other species of animals. Every man's whole bodily organization is adapted to that position. There is indeed one kind of apes walking almost in an erect position; but the legs are never straight at the knees; to steady himself the ape of this order has to touch the ground with his right and left fore-foot alternately, and even then he soon becomes weary of maintaining his unnatural position.

All the nerves, muscles, bones, veins and arteries found in

any man of any race are found in every other man of every race regardless of the color of the complexion, the character of the hair, or the degree of intelligence or culture. All of this points towards the unity of the human species.

But the physical evidence of such unity, which is most interesting and significant, is the prevalence among men of that general law, which runs through the whole of both the vegetable and animal kingdoms, namely, the infertility of hybrids or members of different species, and the fecundity of members of the same species.

By this is meant that if two individuals of two different species marry, in almost every case the marriage is sterile, or if not in the first instance then within a very few generations. If, however, two individuals of the same species marry, there is fertility in the vast majority of cases.

Applying this law to the case of men, observation and experiment show that the intermarriage of individuals of different races of men does not reveal sterility but the opposite. So far from sterility resulting from the intermarriage of men of different races the effect is increased life and strength and fertility. Within the past hundred years, Europeans, who are almost universally Caucasians, have gone to all parts of the globe and married among Ethiopians, Mongolians, and people of every race, and always the result has been fertility, not sterility.

The Mulattoes or people born of the marriage of Caucasians and Negroes in the West Indies have been cited as a case which shows that the two races are really two species; but trustworthy testimony has shown that the sterility of the West Indian Mulattoes in most cases has been due to early immorality. Negroes and Indians have married and the Zambos of America have resulted; Caucasians and Indians have married and the offspring have been fertile.

No two races of men exist who cannot intermarry. This would not be true if the different races of men were different species of beings.

The same law is found among the lower orders of animals. There the infertility of hybrids, and the fecundity of members of the same species, is plainly seen.

There are, indeed, mongrels, varieties of animals within a species, but nothing more; there is, for instance, no successful marriage of the cat and dog, or the horse and cow, or the members of any two distinct species of animals. True, there are alleged cases of fertility of hybrids; they are, however, very few, and exceedingly doubtful. For example, Peschal (Races of Man, p. 10) cites the case of the successful marriage of cockatoos of two species in Mr. Buxton's park, in Norfolk. A cockatoo with a scarlet hood, and unlike either of its parents, was the result. But in this case it is assumed that the cockatoos which married were of two species rather than two varieties of one species. Let it be proven that the two cockatoos which married were of two distinct species, and then only will there be force in the argument.

So it is with every other alleged case of fertility of animal hybrids which we have been able to discover. The individuals marrying might have been members of the same species.

The same law of the infertility of hybrids prevails, almost without exception, in the vegetable kingdom, thus strengthening the argument for the unity of the human species based on the fertility of the marriages of individuals of any race with the individuals of any other race.

In this connection most appropriate is the following language of Mr. Charles Darwin (Descent of Man, Chap. III., §§ 300-302): "Although the existing races of man differ in many respects, as in color, hair, shape of skull, proportions of the body, etc., yet if their whole structures be taken into consideration they are found to resemble each other closely in a multitude of points. Many of these are of so unimportant or of so singular a nature, that it is extremely improbable that they should have been independently acquired by aboriginally distinct species or races. The same remark holds good with equal or greater force with respect to the numerous points of mental similarity between the most distinct races of man."

"Now when naturalists observe a close agreement in numerous small details of habits, tastes, and dispositions between two or more domestic races, or between nearly-allied natural forms, they use this fact as an argument that they are descended from

a common progenitor who was thus endowed; and consequently that all should be classed under the same species. The same argument may be applied with much force to the races of man."

VI. The argument from similarity of mental and moral faculties and habits is the last evidence of the unity of the human species which the limits of this paper will permit me to consider.

Intellect, emotion and will mark the mental nature of every Caucasian. The same is true of every Mongolian, every Ethiopian, every Malay and every Red Man.

The two varieties of men which are most unlike in every respect are the Caucasians and the Ethiopians. Place side by side the most degraded American of the slums of New York and the most degraded Hottentot. Are not both sad and repulsive creatures? It would be difficult to decide which is the more ignorant, superstitious or brutal. Yet one has, as really as the other, intellect, whereby he accumulates knowledge and retains it; emotion, which he displays in laughing or weeping, frowning or smiling; will, whereby he determines to do one thing rather than another. Much more clearly is all this true of the most intelligent American, and the most intelligent Hottentot. One has all the mental faculties of the other—no more, no less—although the Englishman's mind is more highly cultivated than that of his black neighbor, and although on account of hereditary influences the Englishman, at present, is capable of higher education than the African. The obelisks and other monuments of the dim and distant past of the Ethiopians, and the existence of such men as the more talented of our Negroes in America, put beyond question the assertion that the natural differences between the highest and lowest varieties of men are not essential, but are differences which are capable of being overcome in time and under proper influences.

We shall not enlarge on the community of moral qualities which points toward the unity of the human species, but content ourselves with noting the fact that all men have conscience whereby they are sensible of right or wrong. It is true that standards of morals vary greatly in different races; but this is true also within the circle which comprehends each separate race or family of men, and there is no greater difference between the

morals of an average American and an average Chinaman than between the most pious American and the most impious American. And, hence, the fact that all men are endowed with the moral sense, while no other animal is so endowed, is by no means the weakest testimony to the unity of the human species.

To sum up, the common origin of man, or the unity of the human species, is favored by the community of habitat, language, traditions, customs, physical structure and mental and moral faculties and habits of the men of the various races.

Monogenists take their stand on this ground. At the same time they recognize that the diversities of races of men remain to be accounted for. And they account for them by attributing them to the effects of climate, water, food, soil and all other peculiarities of the environment in which a people have resided during long periods of time; and to the effects of the intermarriage of races and the absorption of tribes. Our limits forbid our going into those details which would show that the differences between men are not so many nor so great as a superficial student might imagine, while the points of similarity are vastly more numerous and striking than the points of difference. Such, however, is the case.

There are, then, varieties of men, but all men belong to one species of being.

What of it all? Has the solution of this problem any interest for any one but the speculative philosopher?

Most decidedly it has: For see, if all men are of the same species of beings, then the educator among men may work on, inspired by a reasonable hope that the Negro, the Indian and the other races of men, whose lives have been for so many centuries dreary blanks, may be awakened to careers of light and usefulness and honor, if only they are given time and favorable influences. Moreover, if all men are of the same species of being, then the brotherhood of man follows. And when that is appreciated, slavery becomes a thing not to be thought of, and the employee and his employer as brothers think and feel and act in a way which saves them from many a scene of warfare, and they accomplish as brothers high enterprises which as beings of different species they could never have permitted to enter the field of

their plans and aspirations. Yet again, if all men belong to one species, and not to many, then the voice of science harmonizes with that of religion, which proclaims (Gen. iii., 20): "Adam called his wife Eve: because she was the mother of all living"; and Mars Hill catches up the proclamation, as Paul stands and says more confidently than science can yet say: "God . . . hath made of one blood all nations of men for to dwell on all the face of the earth" (Acts xvii., 24 and 26).

CURRENT THOUGHT.

ETERNITY OF MATTER AND EVOLUTION.—The August number of CHRISTIAN THOUGHT contains an able article from the pen of Dr. Joseph J. Smith upon the question: "Is Matter Eternal, or has it been Created?"

I wish to add a few thoughts upon a special phase of that question.

Infidel and Agnostic Evolutionists usually assume the eternity of matter, and are logically compelled to assume the eternity of all laws and properties of matter, since these are inherent in matter and inseparable from it. If, then, for the sake of argument, these assumptions be granted, another consideration forces itself upon us, namely, that these laws of matter are uniform, consistent and universal. "Like causes invariably produce like effects." This statement must be understood in the sense of exact reproduction, and not simply resemblance.

All natural science is based upon the theory of the unerring, undeviating, immutable laws of nature. Admit the least treachery or fickleness in the laws of matter and you at once destroy the basic fact of natural science.

With these assumptions and truths before the mind, I next introduce a well-known principle in mathematics, namely, "A finite number or quantity, however great, taken from infinity does not diminish the infinite but leaves it infinite still." If, then, matter is eternal, its prior existence is infinite in duration, and no period of time, however great, subtracted from that eternity past can diminish it—it remains infinite still. So that if we

should exhaust our powers of multiplication upon the nonillions of ages that might be allowed for any degree of evolution or development, as, for example, the time required for protoplasm to produce man, or even for the ape to be developed into man, and should subtract this incomprehensible number from the infinite past, there remains the infinite, the eternal, still back of all this, during which the same law of evolutionary development has been in full operation, giving ample time for this development repeated an infinite number of times. In other words, we cannot, even in imagination, get so far back into eternity as to reach a time when everything should not have been as perfectly developed as now.

The very notion of evolution necessitates that of a beginning. This in turn implies a beginner; a creation implies a Creator, and this latter word we begin with a capital C.

The eternity of matter cannot be admitted without thereby logically denying the doctrine of Evolution.

But the Genesis of Moses makes ample room for both the evolution of Revelation and that of Nature. There is a true, a consistent doctrine of Evolution, and there is a false and inconsistent theory. Infidels advocate the latter, and intelligent believers the former.

But, interposes the objector, the cycle theory of the development of the universe would meet the difficulties presented in the foregoing argument. This theory involves the notions of cataclysms, chaotic states, at fixed intervals. And since the laws of nature have been assumed to be eternal, constant and immutable, it follows that the whole material, mental and moral universe has been, not simply many times, but an infinite number of times not similar only, but exactly as they are now. Not the least deviation from exact repetition can be admitted without destroying the very basis upon which this supposed answer to the argument given above rests.

Hence, if this mode of answer be admitted, it must be conceded that every atom, every leaf, every blade of grass, every living creature, every ray of light, every hair upon our heads, every thought, every emotion, every everything, has duplicated itself an infinite number of times and must repeat itself an in-

finite number of times again. But it does seem, to use Mr. Spencer's favorite term, that this whole theory is "unthinkable," certainly unusual and fallacious.

In all our intuitions and modes of reasoning, mind is regarded superior to matter, and design necessitates an intellectual designer. Man has ever felt that there is a superior first cause which we call God. Admit the self-existence and eternity of God with His necessary relations to duration and space, and all is easy. "God is, therefore all things else exist."

G. T. CARPENTER,
Drake University, Des Moines, Iowa.

PROF. SHIMER, of the University of the City of New York, writes us a letter, from which the following extract is taken:

"In my pedagogical work I have met so many agnostics inoculated with Bain's and Spencer's doctrines, patronizing me good naturedly for my *believing*, and flinging at me the charge of basing myself on 'metaphysical assumptions,' that I conceived the idea of showing that there are a thousand false *facts* for every false theory in geology, etc., as well as anywhere else; that metaphysics is as *natural* as mineralogy, etc.; that every scientist has his system of metaphysics underlying all his reasoning, even if he has not consciously set it forth; that the kind of philosophy a man has depends upon the kind of a man he *is*, and never the reverse; that the theory of how a nerve acts always depends on what the physiologist thinks a nerve *is*, and that in every realm of thought, what anything is, more than anything else, determines what it does. In short, it holds good that 'faith is the evidence of things *not seen*,' in every province, and the 'things not seen,' legion by number, in physics are established in precisely the same way that the supernatural is built up.

"In my spiritual life I have as much justification for the faith that is in me as any scientist can have in physics. Indeed it is his faith which becomes the very 'substance of the things hoped for' by him. He gets his *facts* in material sciences no more easily or accurately than facts are obtained in spiritual matters, and the assumptions necessary to work up the latter are no

more metaphysical than in his line of argument. Nor does he ever build up his pyramid of knowledge fact by fact until he reaches the apex, but leaps to *his* conclusion and then hunts for facts. Out of his own consciousness he gets his greatest impulse."

THE GOSPELS.

NOTES BY JOHN H. MITCHELL.

RENAN was compelled to admit ("Life of Jesus," p. 21), "On the whole, I (Renan) admit as authentic four canonical Gospels; all in my (Renan's) opinion date from the first century; and the authors are, generally speaking, those to whom they are attributed." Page 1.—"About the year A.D. 100, all the Books of the new Testament were fixed almost in the form we now read them." (See Bohn's edition of Eusebius, pp. 53, 98, 99, 115, 116, 176, 220, 230, 231.)

PAPIAS, A.D. 70 to 110, recites the same Gospel facts, accepting them as facts, affirming that Matthew and Mark wrote Gospels. His words are: "Matthew composed his history in the Hebrew dialect, and everyone translated it as he was able. Mark has not erred in anything by writing some things as he has recorded them; for he was carefully attentive to one thing —not to pass anything by that he heard, or state anything falsely in these accounts." (Eusebius, "Ecclesiastical History," b. iii., c. 39.)

"JUSTIN MARTYR (about A.D. 140) affirms at their weekly meetings (Sunday): 'The memoirs (Gospels) of the Apostles were read,' and speaks also of those Gospels, quoting and referring to the same facts and events we have still therein recorded, as 'In the Gospel it is written.' 'Words which are recorded in the memoirs of His Apostles.' 'As I (Justin Martyr) have learned from the memoirs.' 'As is recorded in the memoirs of His Apostles.' 'It is written in the memoirs.' 'In their memoirs composed by them, which are called [A.D. 140] Gospels, have thus delivered unto us what was enjoined upon them.' ('Apologies'

and 'Trypo the Jew.') Clement of Rome, 80–100 A.D., also confirms this fact that Gospels were compiled within the first century."

ORIGEN, A.D. 200: "In the first book of his commentaries on Matthew, following the Ecclesiastical Canon, he attests that he knows of only four Gospels, as follows: 'As I have understood from tradition, respecting the four Gospels, which are the only undisputed ones in the whole Church of God throughout the world, the first is written according to Matthew, the same that was once a publican, but afterwards an Apostle of Jesus Christ, who, having published it for the Jewish converts, wrote it in the Hebrew. The second is according to Mark, who composed it as Peter explained to him, whom he also acknowledged as his son in his general Epistle, saying, "The elect church in Babylon salutes you, as also Mark, my son." And the third, according to Luke, the Gospel commended by Paul, which was written for the converts from the Gentiles; and last of all the Gospel according to John.'" (Eusebius, "Ecclesiastical History," b. vi., c. 25, p. 231, Bohn's Edition.)

TERTULLIAN, A.D. 200: "Visit the Apostolic churches; in which the very chairs of the Apostles still preside in their places; in which their very authentic letters are recited, sounding forth the voice and representing the countenance of every one of them. Is Achaia near you? You have Corinth. If you are not far from Macedonia, you have Philippi and Thessalonica; if you can go to Asia, you have Ephesus, but if you are near to Italy, you have Rome." ("Heretics," c. xxxvi.)

We find 80 Gospel facts and statements mentioned by Celsus, the heathen philosopher; Polycarp has at least 36; Irenæus, 767; Clement, 380; Tertullian, 3,000; Origen, 5,745. These statements and Gospel facts were accepted as facts, and never questioned or denied by any early Christian.

As to the quotations by the early fathers being "no quotations," and that "the inaccuracies of the statements as found in the original" is a proof that they did not use the four Gospels, is, they say "a proof the four Gospels were not in existence." We

say we cannot expect more from the early Christian fathers than we expect from classical writers. The classical writers seldom mentioned from whence they had taken many quotations found in their works; it was memory quotations. What is true of classical authors is also, in this respect, true of the early Christian fathers.

Our position is that the Gospel statements are accepted as facts, and never questioned or denied by those who, like St. Paul of the early centuries, could question and did know at first hand the accuracy of the four Gospel statements.

The statements of the sceptics "that because of many Gospels we are not quite sure that we have the genuine four Gospels." That such reasoning is fallacious, is demonstrated to be false, because it is illogical to say because of the existence of many counterfeit coins we are not sure of the genuine. The existence of the spurious, the counterfeit, is certain evidence of the genuine. So by the Gospels, the spurious Gospels demonstrate the genuine. Even Renan, sceptic as he is, confessed, p. 25, "Life of Jesus," of those many Gospels as—"Those compositions ought not in any manner to be put upon the same footing as the canonical Gospels. They are insipid and puerile amplifications, having the canonical Gospels for their basis." Drowning men catch at straws, so infidels in their wicked perversion of truth have resorted to all kinds of trickery to deceive. So now we find those sceptics, by all means possible, to discredit the position, and original position, of Christianity by affirming it to be borrowed. We will test their position.

CHRISTIAN THOUGHT IN FOREIGN LANDS.

SOLICITATIONS for the publications of the Institute are increasing. The latest is as follows, from Rev. L. O. Lee: "Marash, Turkey. Dear Dr. Deems—My work is in the Theological Seminary of this place. I have from time to time given students articles from your magazine of Christian philosophy, which they read with much interest. To-day one of them came to me and asked whether I supposed there was any way by which he could secure CHRISTIAN THOUGHT at half price. I promised to write,

and now transfer the question to you. He is a great student, with a philosophical bias of mind. Just now he is reading everything he can lay hands on, preparing his graduating thesis on 'Comparative Religion.' If any favor like the above could be shown him it would go to the spot. These graduates of our college in Aintab appreciate all the good things going. Our students are all poor and will go out to preach on salaries of $200 and $300 at the best. Therefore they have little margin for English books, although they do wonderfully crave them. Should there be any back numbers of the magazine of no particular use in America, we would gladly pay the freight out and distribute them among our students. All the theological questions up in America get over to us at once."

Rev. Mr. Uchimura, Tokio, Japan, is a member of the Institute and takes an interest in our work. He wishes to expand it in his native land and is seconded by Rev. Dr. Knox, of the Presbyterian Mission, Tokio. These gentlemen believe that the native members could pay scarcely more than a dollar a year for membership fee. A number of applicants sent their names for that much and the liberality of one of our American vice-presidents has supplanted their fees and added their names to the list. Mr. Uchimura writes: "I need not write you the need of Christian philosophy in Japan. The materialism of the worst form is being taught in our higher schools, and only the divine philosophy of the highest type can save us from the degrading influence of Spencerianism and other shallow things. Though I myself am not a specialist in philosophy, and have but little taste in that line, I cannot but be alert on any means to check the overwhelming influence of the godless forms of philosophy which are being imported from England and Germany."

We have opened a special fund to send publications bound and unbound to the different missionary stations, especially Turkey, India and Japan, where there is a demand. Donations to it will be acknowledged in CHRISTIAN THOUGHT from time to time. Let us hear from our members promptly. It would be difficult to point out any way in which a few dollars could be sent on a more profitable mission for the cause of Christianity.

After this article was put in type $5 came from Mr. Lemuel W. Serrell, Plainfield, N. J., which is placed in this fund.

EX-PRESIDENT Noah Porter, of Yale University, was in the first course of our lectures, and his paper, "What we Mean by Christian Philosophy," was published in the first volume of CHRISTIAN THOUGHT. He has been a friend and contributor to our work from the beginning, and at his death was our vice-president for Connecticut. He died at his residence in New Haven, March 4, 1892, in the 81st year of his age. Last September he had an attack of *la grippe*. This was followed by paralysis. In his last illness he thought of the Institute, as a letter from his home indicated.

He was the second son of Noah Porter, for 63 years pastor of the Congregational Church in Farmington, Conn. His ancestors settled there in 1640. He was graduated from Yale College in 1831, entered the ministry in 1836, remained in the pastorate ten years, when he was appointed Professor of Moral Philosophy and Metaphysics in Yale, holding the chair to the day of his death, though of late years *emeritus*. In 1871 he succeeded President Woolsey in the Presidency of Yale College, holding the position until 1885. He received the degree of LL.D. from the University of Edinburgh in 1886, published volumes on the "Human Intellect," "Elements of Moral Science," "Kant's Ethics," and was Editor-in-Chief of the revisions of Webster's Dictionary in 1864 and 1879. He was a profound student, and an influential man in every position he occupied, and as a citizen.

RT. REV. GREGORY T. BEDELL departed this life in New York City on the 11th of March, 1892. He was the son of a clergyman, was born in 1817, ordained deacon in the Protestant Episcopal Church in 1840, was first rector of Trinity Church in Westchester, Pa., and subsequently of the Church of the Ascension, New York. He was consecrated assistant Bishop of Ohio, and on the death of Bishop McIlvaine he became Bishop of the diocese. He was the author of several books, and of a number of addresses. He was one of the earliest of the friends of the American Institute of Christian Philosophy, and was one of its vice-presidents at the time of his death.

MEMORABILIA.

——Though largely unchristian, the so-called Christian nations are in many respects vastly in advance of all the nations which are without the knowledge of the holy Scriptures. Says Dr. Judson Smith in the *Missionary Outlook:*

"Already, in a degree unknown before, Christianity is attaining its object and asserting its rightful place in the thoughts of men. The adherents of Christianity already outnumber those of any other religious faith on the globe. The nominally Christian peoples of the world are reckoned at 450,000,000, while the Buddhists, who come nearest in point of numbers, are only 390,000,000. But the supremacy of the Gospel includes much more than numerical superiority. The *leading powers* of the world to-day are England, Germany, and the United States; all of them Christian States. Wherever their influence is felt, wherever their colonies or commerce or national life are found, there Christianity stands forth the acknowledged, I had almost said the embodied, religious faith. England's empire, girdling the world, is the wonder of the present age, and almost every year witnesses its enrichment and expansion. Germany is swiftly following in the same steps, and within a decade has planted itself on the east and west coasts of Africa, among the islands of the Pacific, and is planning still further enlargement. The United States is the acknowledged leading power of the Western continent, and is entering into closer and more influential relations with all the other American nations. The public opinion of the civilized world, the shaping of the future on all the continents and islands of the earth, is mainly committed to these peoples. The significance of this fact, and its bearings on the dominance of the Christian faith throughout the world, are too plain to be ignored. Let a single fact, the growing prevalence of the English tongue, illustrate what is here suggested. For the 6,000,000 who spoke English in Milton's day, there are now at least 100,000,000 to whom it is either the mother tongue or the common language of daily intercourse."

——The Bible has been decried as opposed to science; but the farther investigation is carried the more it is found to agree

with true science. For instance, the word "firmament" in the first chapter of Genesis was believed to be a crystallization of the old error that the heaven was fixed-set in the sky, as a solid dome above us, but investigation has shown that the Hebrew words mean an expanse of space. Astronomy teaches that the number of the stars is infinite. At a time when stars were supposed to number 3,325, it was stated in the Bible that the hosts of the heavens cannot be numbered, even as the sand of the sea-shore cannot be measured, and it was not till Galileo turned his telescope to the heavens and discovered that stars never seen by naked eye were in the field of vision, not until Lord Rosse found four hundred millions of stars, not until Herschel found that the Milky Way was made up of infinite groups of stars, did we know how truly Jeremiah wrote thousands of years ago. There are some wonderful facts in physiology brought out in the Bible. In Psalm cxix., 32, "I will run the way of Thy commandments when Thou shalt enlarge my heart." Scientists recently called my attention to the fact that the stag-hound, which is noted for its enduring running powers, has the largest heart in proportion to its body of any animal known. So in Proverbs the injunction is given, "Go to the ant, consider her ways, and be wise." Now, you know that the intelligence of the human being or animal is in proportion to the proportion of the gray matter in the brain. There is one little insect whose brain is entirely composed of gray matter, and that is the ant. This had not been discovered in the time of Solomon, and yet you find that he sent the men of that age to the one animal whose brain is entirely composed of gray matter. We are told also in Proverbs that the ant prepareth her meat in summer, and some have said that Solomon had mistaken the ant's eggs, which he saw them carrying in, for seed, and I supposed they were laying up a winter store. But science has proved that there is a species of ant in Palestine that does precisely what Solomon says it does. We are told that man was made of the dust of the ground, and within the last fifty years it has been discovered that the elements in man's body are precisely the elements of the ground on which we tread. A great many other examples can be given. The higher critics some years ago said that the governor of Cyprus should not be

called proconsul, but procurator. That the governor of Cyprus would never be called a proconsul. But they found a coin in that island. On one side was the head of the Cæsars, on the other they found the image of the reigning governor, and that the very word corresponding to proconsul, and not procurator, was used in describing the governor. It is marvellous how the enemies of the cross of Christ can find no discrepancies in the Bible which cast the slightest doubt upon its truth, but students of the Word of God can find agreement after agreement which attests to its truth.—*Rev. Arthur T. Pierson, D.D.*

MONTHLY MEETINGS.

BY THE SECRETARIES.

February.—The Monthly Meeting of the Institute was held on the evening of February 2, 1892, in Hamilton Hall, Columbia College. The devotional exercises were led by the Rev. Dr. David R. Kerr, President of Bellevue College, Omaha, Neb. In the absence of the Secretary, the minutes of the January meeting were read by the Corresponding Secretary. The following names of members added during the month were announced:

William Henry Green, D.D., LL.D., Moderator of the Presbyterian General Assembly, Princeton, N. J.; James M. Buckley, D.D., LL.D., Editor of *The Christian Advocate* (Methodist), Morristown, N. J.; David J. Burrell, D.D., Pastor of the Marble Collegiate Church, New York; Rev. Cyrus J. Kephart, A.M., Pastor Trinity U. B. Church, Lebanon, Penn.; Rev. Charles A. Young, Pastor of the Church of Christ, Ann Arbor, Mich.; Mr. Richard T. Davies, Secretary of the Presbyterian Union, New York; Rev. William R. Goss, Margaretville, N. Y.; Mr. Constant A. Andrews, New York; Rev. Thomas Elliott, Madalin, N. Y.; Edward Taylor, D.D., Binghamton, N. Y.; Mr. Allen Mead North, Binghamton, N. Y.; Rev. Z. D. Scobey, Auburn Park, Ill.; George M. Atwater, Springfield, Mass.; Mr. Francis B. Griffin, New York.

The paper was read this evening by Prof. A. J. DuBois, of the Sheffield Scientific School of Yale University, on "Science and Faith."

The following letters were read:

From *Rev. Dr. Hoffman*, General Theological Seminary, 1 Chelsea Square, New York. "I have read with deep interest and pleasure the paper you sent me on 'Science and Faith' by Professor DuBois, of the Sheffield Scientific School of Yale University. It seems to me to present in an unusually clear manner the demands which science makes upon its votaries for faith; and I am sure will do good wherever it is read. It would give me much pleasure to listen to its reading to-morrow evening, and to meet Professor DuBois, but I fear that my other engagements will not allow me to be present."

From *Rev. Dr. Henry Van Dyke*, Brick Church, New York. "This article that you have sent me is very strong, clearly conceived, well expressed and very suggestive. It is altogether too good for such rambling and disjointed criticism as I could make now. There is no time for treating it as it deserves, or doing anything more than expressing a general approval and then diluting it with watery phrases. My respect for Prof. DuBois is too great to permit me to do that."

From *Prof. Charles W. Shields*, Princeton, N. J. "It is an admirable paper—clear, vigorous and consistent; and its conclusions seem to me quite irresistible. At the same time its style, especially in the descriptions of the ideality of science, has as much beauty as force. I have followed the argument with the peculiar pleasure with which one finds his own views advocated by another writer who approaches the same subject from a different point and by a somewhat different route. Professor DuBois has struck with a master hand the key-note of that Harmony of Science and Religion which must ever be fundamental in true philosophy.

"I am much honored by the invitation to attend the meeting of the Institute next Tuesday evening. Did my engagements permit, it would have given me great pleasure to be present and listen to the reading and discussion of the paper. I regret that I have not even the time to prepare a written criticism such as you request—unless you will permit me to modify and apply some sentences from my own writings which bear upon the argument of the paper, not in the way of objection, but of addition and enlargement.

"Desiring thus to comply with your wishes, I submit the remarks enclosed herewith, and remain."

[The remarks alluded to are printed with Prof. DuBois's paper in this number.]

Prof. DuBois received a vote of thanks for his paper, and was requested to furnish a copy for CHRISTIAN THOUGHT.

It was announced that the sixteenth Summer School of the Institute would be held at the Park, West Brighton, Staten Island, beginning on the 12th of July and lasting eight days. An urgent appeal from Vice-President Uchimura, of Tokio, Japan, was read by the President. The need of Christian literature dealing with the philosophy of the day in that empire, was shown, and the president announced that owing to this appeal and an equally impressive one from Turkey, he should open a fund for the distribution of the literature of the Institute in missionary countries, and invited friends interested in this movement to assist him.

March.—The monthly meeting of the Institute was held on the evening of March 1, 1892, in Columbia College. The devotional exercises were led by Rev. E. Rogers of Cincinnatus, New York. In the necessary absence of both secretaries, no minutes were read. The company present listened with great gratification to a paper by Rev. W. F. Blackman of Ithaca, N. Y., on "The Teaching of Sociological Science in Theological Seminaries." The paper was discussed by Rev. Dr. W. W. McLane of New Haven; Rev. E. Rogers of Cincinnatus, N. Y., and the President. A vote of thanks to the author was given and the paper requested for publication in CHRISTIAN THOUGHT. It appears in this number.

The following new members were reported:

Mrs. Bertha M. H. Palmer, president Board of Lady Managers of the World's Columbian Commission, Chicago, Ill.; Mrs. Frederick Billings, New York; Alpha Jefferson Kynett, D.D., LL.D., corresponding secretary of the Board of Church Extension of the M. E. Church, Philadelphia, Penn.; William Anson Spencer, D.D., assistant corresponding secretary of the Board of Church Extension of the M. E Church, Philadelphia, Penn.; A. J. DuBois, professor Sheffield Scientific School, New Haven,

Conn.; Leander T. Chamberlain, A.M., D.D., Philadelphia, Penn.; Rev. Charles H. Travis, Pine Hill, N. Y.; Rev. L. O. Lee, Marash, Turkey; Rev. George W. Wilson, Jacksonville, Ill.; Miss Mary E. Royster, New York; John Emerson Coyle, Brooklyn, N. Y.; Henry W. Rankin, East Northfield, Mass.; Rev. Tokiwo Yokoi, Tokio, Japan; Rev. KaKichi, Tsunajinia, Tokio, Japan; Rev. Masahisa Nemura, Tokio, Japan; Rev. Yoshiyaeu Hiraiwa, Tokio, Japan.

ABOUT BOOKS.

[In this department we shall make mention of recent publications, especially those in the line of our studies. There will not be space for extended review. The name of the book, its publisher, and its price when known, together with a brief statement of its drift, will probably meet the demands of our readers. Any book mentioned will be sent post-paid, on receipt of price, by WILBUR B. KETCHAM, 2 Cooper Union, New York.]

"Homilies of Science," by Paul Carus, is issued by the Open Court Publishing Company, Chicago. This book appears to be the product of a mind adrift, therefore it is difficult to follow it. Sometimes it is far from truth, sometimes it approaches very close to the truth. Take this sentence: "Thus God, the immutability of impersonal or rather of superpersonal intelligence, is the condition of science and the basis of ethics." How clearly and absolutely clear this sentence would be if all between the word "God" and the word "is" were left out. God is the condition of all science and is the basis of all ethics, but the conception of a mere intelligence which is impersonal, whether it be superpersonal or subpersonal, is no God at all. It is a mere concept of what cannot exist, for there can be no intelligence without personality. The book is full of such inaccurate sentences. For instance, we have such a phrase as the "ethics of arithmetic." He says, "Every child knows that that cannot be changed," whereas there is no child that can know that such a thing can exist, as ethics always has to do with questions of responsibility, and responsibility implies one who has a right to demand answer and one who is obliged to give it; and both must be persons not numbers. Here is another sentence in which the truth is grazed: "All I ask is the use of the word God in the sense of the ulti-

mate authority in conformity to which man regulates his actions." There can be no authority in conformity to which man *ought* to regulate his actions which does not reside in some person. There are so many things like these in this book that we cannot see that it is at all a valuable contribution to philosophical literature.

Under the title "Reformation Principles Stated and Applied," the Rev. J. M. Foster supplies us with a vigorous book made up mainly of addresses delivered in advocacy of the principles of the National Reform Association. It discusses the application of morals to national questions, and does it in a way to make the whole book a tonic. One man can hardly write a volume of four hundred pages without including many things which those who favor his general principles will hardly be prepared to endorse, but we think this book as a rule has as little of this as any of its kind which we have ever examined. We wish it a large circulation. It is published by Fleming H. Revell.

"Elton Hazleton," by Frederick George Scott and published by Thomas Whittaker. It is not so much a memoir or a story as it is a profoundly engaging psychological study. In interest, it is superior to most books of its class, and we commend it to our readers with an assurance that they will enjoy it. It is also a very beautiful specimen of typography and binding.

Christian Thought.

THE RELATION OF CHRISTIAN PRINCIPLES TO CIVIL GOVERNMENT.

[Delivered before the American Institute of Christian Philosophy, January 15th, 1892.]

By James M. King, D.D., New York.

WHAT are some of the principles which have been either generated or vitalized or maintained by Christianity and have in some measure been incorporated by civil governments into their laws? The best catalogue I have seen in response to this inquiry is found in the preface to "Gesta Christi." They are such as these: "Regard for the personality of the weakest and poorest; respect for woman; the absolute duty of each member of the fortunate classes to raise up the unfortunate; humanity to the child, the prisoner, the stranger, the needy, and even the brute; unceasing opposition to all forms of cruelty, oppression and slavery; the duty of personal purity and the sacredness of marriage; the necessity of temperance; the obligation of a more equitable division of the profits of labor and of greater co-operation between employers and employed; the right of every human being to have the utmost opportunity of developing his faculties, and of all persons to enjoy equal political and social privileges; the principle that the injury of one nation is the injury of all, a profound opposition to war, a determination to limit its evils when existing, and to prevent its arising by means of international arbitration."

We must not confound Christian principles with the teachings and work of the Christian Church. The organized Church has often evinced utter absence of Christian principle, and has been both the author and instrument of governmental tyranny

and cruelty, the partner of power and of the oppressor. Christian principles have often in practice been obliged to contend against the organized Christian Church. Confounding the relation of the Church to civil government with the relation of Christian principles and civil government, has often put genuine Christian principles in an attitude of apparent hostility to their own teachings.

The Christian Church has been the breeder and promoter of persecution against individual belief and the right of private judgment. It engrafted its cruel and wicked ideas in Roman law, and Christian Romanism became at one time more bigoted than heathen Romanism. The legislation, the persecution, the extortion, the slavery, the banishment, the tortures, the executions, inflicted upon the Jews by the authority of the Christian Church, constitute the most excuselessly dark periods in human history. The persecutions of Protestants by Catholics and Catholics by Protestants, the use of civil government by the Christian Church as an engine of cruelty have often driven the Christ, whose name it bears, from His rightful throne by banishing the principles upon which His throne rests. Meantime Christian principles, independent of the Christian Church, have been working their way into the legislation of civilized nations through individuals who have become imbued with their power. The Socialist Cabet says: "If Christianity had been interpreted and applied in the spirit of Jesus Christ, if it had been well known and faithfully practised by the numerous portions of Christians who are animated by a sincere piety, and who have only need to know truth well to follow it, this Christianity, its morals, its philosophy, its precepts, would have sufficed, and would still suffice, to establish a perfected society and political organization to deliver humanity from the evils which weigh it down, and to insure the happiness of the human race on the earth."

The union of the Church with the state under Constantine undoubtedly revolutionized Roman legislation, but that union, and every other example of it in history, has eventually retarded, and never permanently promoted, the incorporation of Christian principles in the laws of nations in such form as to impress their

binding force on the consciences of men. Christian principles must emanate from the people and thus reach the legislators, if they are to be permanent and pervasive in their influence.

It is claimed by some scholars that Christianity gave to the world no higher moral code than it previously possessed in Judaism, in Confucianism, in Buddhism and in Brahmanism, and in the teachings of the Greek philosophers; but I am not aware that any candid scholars claim that the ethical theories and moral codes that preceded the revelation and incarnation of Christian principles produced any harvest of civilization after their kind, affecting humanity as such, and moulding human governments by the germinating power of righteousness and goodness working in the lives of multitudes of men. These pre-Christian theories at most only produced an occasional philosopher and moralist, and these had no sympathy with humanity and did nothing to effect its regeneration. We claim that Christianity not only gave us new moral principles, but vitalized and utilized existing dormant principles. It has revealed the fatherhood of God and the brotherhood of man. It has given exalted conceptions of the sacredness of human life. It has told us that man as man has rights. The spirit of Christianity is essentially democratic in the ideal of life it reveals. Even the skeptic Renan says that "the Gospels are the democratic book *par excellence*."

The author of Christianity dictated no particular form of civil government, but, paradoxical as it may appear, taught submission to the despotic Roman government of his time. He knew that governments would be reformed if individual character was reformed, and therefore He gave principles as seeds in the soil of individual character, which He knew would furnish a harvest of equal rights. Modern liberal institutions are a part of this harvest. The races and peoples that have been approximately governed by these principles have had and now have the freest institutions and guarantee the largest rights to all. There is hardly a law on the statute books of any nation designed to protect the rights of man as man that did not have its birth in Christian principles.

The Christian principles of brotherhood and equality have inspired all the efforts made by civil governments for the education of the masses whereby the wealth of communities is forcibly dis-

tributed for the benefit of the fortunate and the unfortunate alike. Educational charities designed to root out the germs of crime and pauperism and thus prevent the formation of criminal and pauper classes are unknown where Christian principles are absent.

Not only have Christian principles shaped and energized individual civil governments for their highest destiny, but they have created the body of modern international law, which alone has proposed practicable rules for the conduct of nations toward each other and made the settlement of international differences by arbitration the crowning glory of the century now closing.

Perhaps the changes wrought by Christian principles in the laws concerning marriage and divorce have been as beneficent in the scope of their influence as any. Christianity gave a new conception of the character and position of woman, and of the relation of husband and wife. The code of Justinian said: "It is worthy of the chastity of our times to give this new position to woman; tutelage of woman must be done away with." Christian principles partly regenerated Roman law, restoring civil equality between husband and wife—effected this great change thus early, but the advance made under one reign was often lost in another. Women of all ranks in society being the earliest converts to Christianity, Christ and His chosen teachers inculcated respect for their character and recognition of their rights, and taught that marriage was an equal union in a spiritual partnership only to be dissolved for unfaithfulness or desertion. "The test of advancing civilization in each country is the advancement in the social, legal and political position of woman," because this determines the character of the family life.

Perhaps the most important and appropriate question for our consideration is: What is the relation of Christian moral principles to *our* civil government?

An eminent thinker has recently said: "No state has heretofore attained a permanent life without some faith in a higher than human power. Something above man to which man is subject has always been a recognized bond of society. The assumption, therefore, that the American commonwealth occupies a position of indifference to all religions is contradicted by the facts of our history, of our laws, and by all sound philosophy."

Let us look into the matter. When De Tocqueville, some sixty years since, when our population numbered fifteen millions, returned to France, and reported in permanent form the results of his wise and philosophic study of our institutions, he said: "Although the travellers who have visited North America differ on many points, they all agree in remarking that morals are far more strict there than elsewhere. It is evident that, on this point, the Americans are very superior to their progenitors, the English."

This same political philosopher has said: "The new States must be religious in order to be free. Society must be destroyed unless the Christian moral tie be strengthened in proportion as the political tie is relaxed; and what can be done with a people who are their own masters, if they be not submissive to Deity? It cannot be doubted that in the United States the instruction of the people powerfully contributes to the support of the democratic republic; and such must always be the case, I believe, where the instruction which enlightens the understanding is not separated from the moral education which amends the heart."

"The sects which exist in the United States are innumerable. They all differ in respect to the worship which is due to the Creator; but they all agree in respect to the duties which are due from man to man. Christian morality is everywhere the same. Christianity, by regulating domestic life, regulates the State. Every principle of the moral world is fixed and determinate. Religious zeal is warmed by the fires of patriotism."

These utterances, as intelligent citizens of this Republic, we do well to meditate. Refugees from civil and religious persecutions founded the Nation, and the legitimate offspring of such a parentage was civil and religious liberty. Almost everything worth possessing in our institutions was secured for us by our Christian ancestors.

What is Christian moral principle? It is impossible for us to consider the influence of Christian moral principle upon our nation without recognizing the power of the Christian religion back of and in it. When we here speak of Christian morality and Christian principle we mean to use the terms interchangeably. Still, we confess that religion and morality are neither comple-

ments nor germs of each other, while they have much in common, and cannot be safely or reasonably divorced in theory or practice ; and the Christian religion and Christian morals never stand in a relationship of actual conflict with each other, their antagonisms being only apparent. Christian morality and religion must dictate the same rules of practice and move in the same lines of duty, although they learn and determine their respective rules from different stand-points.

They teach their disciples to walk in the same direction, but on planes of different elevation. Morality, without the recognition of the divine as its source and sanction, becomes weak and heartless; and religion, unless it is embodied in a sound, moral life, becomes lean and strengthless. Thus the moral character of institutions and civilizations has been determined by the genuinely religious characters of the times that have produced them. The formation and elevation of character by the power of mere morality has been confined to an exceptional and limited few, but religion has exerted its power upon all classes and conditions. Christian morality and Christian religion have demonstrated their capacity to mould and bless humanity. That a State or nation should be guided by the same general principles of moral conduct by which an individual is, or ought to be, guided in his private conduct, is a truth which seems involved in the very conception of national being. In the civilized world of modern Europe and America we take theological and political differences for granted ; but we assume a common morality. But how shall the State be said to possess any moral code only as the consensus of belief among the people determines it ?

For what does the State exist ? The very idea and origin of our government is to afford opportunity for the development and protection of man as a moral and social being. Its existence is impossible, as well as uncalled for and criminal, unless it answer these ends. We seek and secure the divorce of the State and formulated religion; but when the Christian religion and the morality it teaches are taken out of our civil government, nothing remains save an offensive carcass. The State, however, as a symbol and embodiment of moral principle, is a necessity of man's moral nature. The State, under our form of government,

has to recognize Christian moral principle as the basis of its own existence.

And, therefore, while it exists for secular and civil purposes, finds itself substantially the creature of Christianity; and whenever it has found itself engaged in a struggle for its defence or existence, it has never issued from the struggle until it has adopted for its war-cry some principle that has had its birth in Christian morality. Prof. Atwater, of Princeton, to whom we are indebted for many strong utterances bearing upon this subject, has said: "Moral principle enters into the very being of the State as the impelling and the final cause of its formation; its very end is to promote the prevalence of justice by self-imposed laws; laws imposed in the exercise of its own free activity by its own constituted authorities, and not by any alien power."

What does the separation of Church and State mean in this land, and what is the law relating to religion? Church and State co-exist in this land, but they are not wedded. They have their individual work to perform. The secular interests are guarded and promoted by the State; the moral and religious interests by the Church. And yet so closely are they related to each other that the State depends for its existence upon the character given its citizenship by the Church, and the Church, in turn, receives protection from the State for its property, and from interference with its worship and instruction. Our experiment has proved that religious freedom is the best friend of genuine Christianity, and that it is also the best foundation for a "government of the people, by the people, and for the people." The voluntary principle is the aggressive energy of Christianity. We have not, however, in any sense, an absolute separation of Church and State. While we have no established national Church, with obligatory membership, and no taxation for the support and promulgation of any creed, and while citizenship and political rights are independent of Church membership, we are not a nation without religion. The union of Church and State is a different question from the union of religion and the State. Union in both of these cases is possible, but separation of religion from the State is impossible. A learned law-writer has said: "Those things which are not lawful under any of the

American constitutions may be stated thus: 1. Any law respecting an establishment of religion. 2. Compulsory support, by taxation or otherwise, of religious instruction. 3. Compulsory attendance upon religious worship. 4. Restraints upon the free exercise of religion according to the dictates of the conscience. 5. Restraints upon the expression of religious belief." It is not toleration which is established in our system, but religious equality. We accept this summary when construed in the light of our history.

We are a Christian nation in the recognition of Christian principles as the standard of appeal. Every government necessarily has some form of religion recognized in its state institutions, and is moulded by its power. Historically we are a Christian nation. The divine authority of the Bible is certainly taken for granted in the very make-up of our Government. Every officer, from the President down to the lowest official, is inducted into office under the solemnity of an oath on that volume. The Christian religion and the morality that it teaches, in one way or another, permeate all our institutions. Everything in our political system indicates the recognition of the principle that the Bible is the common standard of right and wrong in morals. In all the evidences of the prevalence of religion in a nation we present an array most formidable. Look upon our Christian Churches and Sabbath-schools; upon our colleges and seminaries of Christian learning; upon the distribution and study of the Bible; upon the sacredness of the Sabbath; upon the unstinted beneficence and multiform charities, almost all the overflow of Christian love. Government requires the Christian oath as the standard, both for entering upon the duties of citizenship and office-holding. American jurisprudence, as well as English common law, rejects the testimony of atheists, because an oath has no meaning, no sanction in the mouth of one who does not believe in a just God and a future retribution. Government appoints days of thanksgiving, fasting, and prayer. The Congress of the nation and the army and navy have their chaplains, with the salaries paid from the national treasury. States exempt church property from taxation, and employ the ministers of religion in all their penal, reformatory, and beneficent institutions.

The State punishes offences against God and religion, such as Sabbath-breaking, blasphemy, perjury, sacrilege, religious imposture, and violation of burial-places.

Now, legislation is the expression of human sentiment, and it would seem to be the shallowest kind of pettifogging to claim that the legislation in these directions of a Christian people was dictated by a desire simply to lessen human evils regardless of the fear and favor of God, whose expressed will taught man that they were not only evils, but sins. Dr. Woolsey, in noticing the legislation in these directions, says: "On the whole, while laws against irreligious acts notice them in part on account of their human evils, I cannot help finding in them another element, proceeding from religious feelings themselves, from reverence for the Divine Being, irrespective of their injury to human society. Man, in his legislation, cannot get rid of his sentiments; even in the later attempts at legislation, when the limits are more exactly drawn between that which is injurious to society in some specific way and that which is sinful, the sentiment will assert its right in defining crime or enhancing punishment."

Christianity constitutes the most important part of the common law of the land. It is the strength of the law because it is intrenched in the sentiments and affections of the people. President Dwight, late of the Columbia College Law School, has written: "It is well settled by decisions in the courts of the leading States of the Union that Christianity is a part of the common law of the State. Its recognition is shown in the administration of oaths in the courts of justice, in the rules which punish those who wilfully blaspheme, in the observance of Sunday, in the prohibition of profanity, in the legal establishment of permanent charitable trusts, and in the legal principles which control a parent in the education and training of his children. One of the American courts states the law in this manner: 'Christianity is, and always has been, a part of the common law of this State—Christianity without the spiritual artillery of European countries—not Christianity founded on any particular religious tenets—not Christianity with an established Church and titles and spiritual courts, but Christianity with liberty of conscience to all men.'

"The American States adopted these principles from the common law of England, rejecting such portions of the English law on this subject as were not suited to their customs and institutions. Our national development has in it the best and purest elements of historic Christianity as related to the government of States. Should we tear Christianity out of our law we would rob our law of its fairest jewels, we would deprive it of its richest treasures, we would arrest its growth, and bereave it of its capacity to adapt itself to the progress in culture, refinement, and morality of those for whose benefit it properly exists."

Professor Blackie has recently said, in response to the question, "What does history teach? The improved tone of social feeling in all the relations of man to man, which we owe to the great principle of living as brother with brother, under a common heavenly Fatherhood, these are forces largely operating in the present day which justify us in hoping that many a social experiment which signally failed with the ancients may be crowned in the centuries which are now being inaugurated with encouraging success, and inaugurated only where Christianity is the recognized motive-power and energy."

In speaking of France, he says: "A republic in an over-civilized, highly centralized, bureaucratically-governed country, with a religiously hollow, hasty, violent, excitable, and explosive people, seems of all social experiments the least hopeful; and that is all that can be wisely said of it at present. But the social conditions in America are altogether different; and the experiment of a great democratic republic for the first time in the history of the world will be looked on by all lovers of their species with the most kindly curiosity and the most hopeful sympathy."

The Christian principles in the laws of our civil government embrace all that gives permanency to justice and efficacy to mercy, and dignity to man and glory to God.

Goldwin Smith says: "Not democracy in America, but free Christianity in America is the real key to the study of the people and their civil institutions."

Dr. Storrs says that Christian principle, becoming a part of civil law, "has shown itself the power to reconcile, to liberate, and to set forward nations with a steadiness and a strength which had certainly before been unknown in the world."

Professor Bryce, sixty years after De Tocqueville, when our population had reached sixty millions, says: "The institutions of the United States are deemed by inhabitants and admitted by strangers to be a matter of more general interest than those of the not less famous nations of the Old World. They are, or are supposed to be, institutions of a new type. They form, or are supposed to form, a symmetrical whole, capable of being studied and judged all together more profitably than the less perfectly harmonized institutions of older countries. They represent an experiment in the rule of the multitude, tried on a scale unprecedentedly vast, and the results of which everyone is concerned to watch. And yet they are something more than an experiment, for they are believed to disclose and display the type of institutions towards which, as by law of fate, the rest of civilized mankind are forced to move, some with swifter, others with slower, but all with unresting feet.

"The whole matter may, I think, be summed up by saying that Christianity is in fact understood to be, though not the legally-established religion, yet the national religion. So far from thinking their commonwealth godless, the Americans conceive that the religious character of a government consists in nothing but the religious belief of the individual citizens, and the conformity of their conduct to that belief. They deem the general acceptance of Christianity to be one of the main sources of their national prosperity, and their nation a special object of the divine favor.

"Religious bodies are in so far the objects of special favor that their property is in most States exempt from taxation; and this is reconciled to theory by the argument that they are serviceable as moral agencies, and diminish the expenses incurred in respect of police administration.

"There has never been a civilized nation without a religion, and though many highly civilized individual men live without it, they are so obviously the children of a state of sentiment and thought in which religion has been a powerful factor, that no one can conjecture what a race of men would be like who had, during several generations, believed themselves to be the highest beings in the universe, or, at least, entirely out of relation

to any other higher beings, and to be therewithal destined to no kind of existence after death.

"History tells us that hitherto civilized society has rested on religion, and that free government has prospered best among religious peoples.

"Religion and conscience have been a constantly active force in the American commonwealth, not, indeed, strong enough to avert many moral and political evils, yet at the worst times inspiring a minority with a courage and ardor by which moral and political evils have been held at bay, and in the long run generally overcome."

Christian principles, regnant in the lives of men, will constitute a perfected human society, and from such a society will legitimately issue a civil government worthy of its parentage. When their purposed supremacy in the world is accomplished, there will be societies and governments as pure as the Sermon on the Mount, or as supreme over sin and evil as the Incarnate Lord.

DR. B. B. TYLER, Pastor of the Church of the Disciples, New York, in the course of the discussion on the preceding paper, said:

I desire, Mr. President, before this meeting adjourns, to express to Dr. King my personal gratitude for the excellent thoughts so happily presented in his address. I am his debtor. He has done me good; and, if it will be of any value to him, either as a warning or an encouragement, I now give notice that I expect, in different places in this land, to say some of the things that we have just heard him express.

I note, first of all, the distinction made in the early part of the address between Christian principles and the organized Church. This is an important distinction; and I am persuaded that there are but few men who possess the moral courage necessary to make a declaration in a public address as to the un-Christian conduct of the Church in some periods of its history which Dr. King made. Its acts have often been directly opposed to Christian principles as enunciated by Christ and His chosen representatives. Dr. King's statements are warranted

by the facts in the case. The organized Church has, at times, been the most determined enemy of Christian principles.

I wondered, as the thoughts of the address passed before my mind, how it is possible for Prof. McMaster, in writing his "History of the People of the United States," to be, apparently, ignorant of the fact that religion has, from the beginning, been a most important element in the life of our people. This distinguished and fascinating writer seems to be ignorant of the fact that the people of the United States have a religion, and that their religious principles have been an important factor in the formation of their character. I cannot speak extravagantly of Prof. McMaster's work from a literary point of view. His book is to me more interesting than any work of fiction. His style is charming. His volumes are replete with most interesting facts. The work is of great value. But this only intensifies my surprise that he, apparently, fails to see the presence and power of Christianity in the life of the people of the United States.

Let us, for a moment, recall a part of the primer of our history.

New England was settled by Congregationalist Christians. New York was settled by Dutch Christians. Pennsylvania was settled by Quaker Christians. Maryland was settled by Roman Catholic Christians. The Carolinas were settled by Huguenot Christians. The relation of the Wesleys and of Whitefield to General Oglethorpe, and his colony, were such that it seems proper to say that Georgia was settled by Methodist Christians. Rhode Island was settled by Baptist Christians. Virginia was settled by Episcopal Christians.

In every instance, the foundations of the original commonwealths of our great Republic were laid by men who had faith in God and in His Son, Jesus Christ our Lord. Their Christian principles impelled them to build as they did. This is, then, in an important sense, a Christian nation. Its destiny, under God, will depend on our comprehension and correct application of Christian principles in the solution of the great problems which from time to time come up for our consideration.

But our fathers did not come to a full understanding of the relation of Christian principles to civil government at once.

The true relation of Church and State to each other came to be understood only by degrees. In fact, it was not until March 13th, 1877, that the last bond that legally united Church and State in the American Republic was severed. Up to that date, in the State of New Hampshire, "if a man were as pious as Fendon, as eloquent as Massillon, as brave and patriotic as Lafayette, the friend of America, in the times that tried men's souls, as self-sacrificing as Charles Carroll, or as devoted to the cause of religious liberty as Castelar, the Spanish statesman," he could not, there, "if unanimously elected by the people, serve as governor, lieutenant-governor, senator, or representative, for no persons, unless they were of the Protestant religion, could hold any such office" in the Granite State. These "objectionable parts were stricken from the Constitution, and the amended instrument was ratified by the people March 13th, 1877." Thus was severed the last legal bond uniting Church and State in our Republic.

The outlook is full of encouragement. More and more Christian principles are being used in the settlement of difficulties. The prow of the Ship of State, as I see it, is turned toward the Star of Bethlehem. The wise men of the world will yet gather around the bench of the Carpenter of Nazareth and learn the true principles of political economy!

EVOLUTION AND FREE-WILL.

[Read at the May Meeting.]

By Rev. J. H. Edwards, of New York.

PERSONALITY is the supreme fact of the universe. Free-will is the essential factor in personality.

Absolute freedom, the liberty of indifference, is a speculative figment. God Himself acts in obedience to the demands of His nature. The nature of Deity is the harmony of the Divine will with absolute reason. True liberty

> "Always with right reason dwells
> Twinned, and from her hath no dividual being."

There is no will, in the proper sense of the term, but free-will. Compulsion nullifies volition. If the universe were an infinite series of cogged wheels, personality could not be. But there is abundant evidence of will, and of free-will, in the universal system. Sometime, somewhere, cosmic energy had supernatural birth, and direction was given its activity. Beginning makes logically possible repetition of impulse. Dynamic efficiency from without is indispensable to generate each increment in the ongoing of evolutionary development.

What is true of motion is equally certain as to life. The lowest form of life is beyond the originating scope of blind force. Energy has been called the Proteus of the universe, but transmutation is not creation. All life implies and produces free activity. The amœba, Professor Ladd affirms, has a will of its own. It shows changes inexplicable under any laws of reflex motion. The higher the organic type, the larger and nearer uncaused is the freedom. The moral activity of intelligent beings is the highest and freest form of life.

Compulsory action has no moral character. The unfree is unmoral. Coerced, neither God nor man would be the responsible author of his own deed. The free choice of good always

accords with law. Evil is lawless and disintegrating. Without power to choose and realize the good, it is a question whether endless continuity of existence would be possible, even to the Almighty.

Hence, the attack upon freedom of will, whether delivered by materialistic science or by fatalistic theology, is a direct assault upon the nature and government of God, and destructive of personality, morality, high art, and immortality.

This is the purport of the monistic philosophy, prophesying in the name of physical science. The issue is unmistakable and momentous. Haeckel declares, "There is no such thing as free-will. Necessity is God." His followers assert that the ultimate law of the universe is mathematico-mechanical causation. We shall yet arrive, they say, at the mechanical equivalent of consciousness, as we have at that of heat. Spontaneous action is impossible. "Free decision," says Auerbach, "is only the result of past influences." M. Luys affirms that "all spontaneous effort of the mind is an illusion, since every object of attention or choice is forced upon us by that cunning conjurer, the brain, set vibrating by external stimuli." Spencer teaches that freedom is an illusion, which "consists in supposing that each moment the *ego* is something more than the aggregate of feelings and ideas which then exists." "To say that these psychical states determine their own cohesions is absurd." Miss Martineau wrote in humiliating sincerity, "I am a puppet, moved by this string and that." Popular light literature diffuses the notion. Du Maurier, in Peter Ibbetsen, puts these thoughts into the mouth of his hero: "Free-will was impossible. We could only seem to will, and that only within the limits of a small triangle, whose sides were heredity, education and circumstance . . . that is, we could will fast enough,—too fast; but could not will *how* to will: fortunately, we were not fit as yet, and for a long time to come, to be trusted, constituted as we are." It is noteworthy, in this connection, that Dr. McCosh, using the same figure, makes the sides of the triangle to be heredity, surroundings and will.

If the absolute law of the universe is the persistence of force working in endless uniformity, the very existence of free spirit,

divine or created, is impossible. This is the goal to which atheistic evolution brings its disciples. It seeds in pessimism, fruits in anarchy.

Do the teachings of nature confirm the doctrine that man is but a machine? Physical science, rightly construed, cannot contradict eternal truth. It ought to throw analogical light, at least, upon spiritual verities. Yet the authors of "The Unseen Universe" say, "We cannot hope that natural science will ever lend the least assistance towards answering the Free-will and Necessity question." Professor G. T. Ladd, a competent authority, also affirms that "nothing of scientific value which physiological psychology has to offer, throws any clear light on the problem of freedom of will." Nevertheless, he says, "to call it an illusion is against consciousness, where experts and novices in cerebral physics are alike ignorant." But, though the grey matter of the brain must confess as to this master force in the universe, "It is not in me," we can hardly believe that some plain proof of its existence will not be found in the broad and fertile territory opened by modern science. Nature is the well-pathed kingdom of regal will, its field of activity, and not the adamantine barrier to all free action.

In essaying a fresh study of a long controverted subject, it is not with the presumptuous thought of solving the hitherto unsolved; but only with the purpose of searching the disputed ground for any clues which may lead up toward harmonious truth. Certain general principles will help clear the field in debate.

1. Nature cannot lie. If it could, science would be impossible and religion an imposition. Simple consciousness is the reflex impression made upon the mind by the facts of the universe, both objective and subjective. It is the report which nature makes to man of all within its ken. A fact of universal consciousness must have a reality corresponding to it. The sense of autonomy is universal with all men of sound mind. Every human being of normal faculties says each day of his life, "I will," or "I will not," knowing that he might say and choose the contrary. The testimony of consciousness is corroborated by language, history, government, and the laws and customs of

daily intercourse among men the world over. The influence is legitimate that free-will is a principle of human nature.*

2. From nothing, nothing comes. Freedom is not in nature, and so cannot be a product of nature.† Heredity could not hand down what it had not received. Therefore, freedom is a supernatural endowment of moral beings. The cause is at least equal to the effect. An eternal, personal Power, conditioned only by His own nature, must be the Author of the equitably conditioned free-will of finite intelligences.

3. Law is simply the method in which forces act. It is, consequently, not itself a force. As the actual mode of everything that is, it cannot be contrary to freedom. Law is concrete order, and must include every fact in its proper place and relations. There is, therefore, a law of freedom, or liberty within law.

4. The idea of Force as Will has been called the central speculative conception of the present age. Spinoza identified intellect and will. Schopenhauer makes will the ground of all that is, but only as pure spontaneity or blind force, without mo-

* In "Outlines of Cosmic Philosophy," II., p. 182, Mr. John Fiske says of the argument for free-will from the testimony of consciousness that "it would have been equally appropriate for the mediæval astronomer to appeal to consciousness as testifying to the revolution of the sun about the earth." But it is not claimed that consciousness furnishes an infallible philosophy of phenomena with its report of fact. All men know that the sun's rays come over the eastern horizon in the morning; the common belief that this was the result of the sun's movement around the earth was an inference based on insufficient data. All knowledge ultimately rests upon the truthful report of consciousness; but the material thus furnished must be built up in ordered systems by right reasoning. Normal consciousness testifies to man in all ages and lands of the facts of personality, continuous identity, the possession of certain senses and faculties, and the reality of natural phenomena. Among these germinal contents of consciousness is the universal sense of freedom of choice and action within varying limits. A false or insufficient philosophy regarding any of these original facts of human consciousness may be entertained; but if the primal dicta of conscious intelligence are denied, then all knowledge is impossible, and science an *ignis fatuus*.

† A necessitated universe could not give birth to even the conception of liberty. "How can mechanical necessity produce the conviction of freedom, of choice, and all the activity of conscience? If it could, then the belief in freedom and all other views, true or false, are a necessity. But, if necessary, they must be true; in other words, error is truth!"—*J. H. W. Stuckenberg.*

tives or ends, and so not as volition. The universal will, in his theory, as stated by Schwegler, objectifies itself in three stages: (1) in the inorganic world as gravitation, magnetism, and other forces; (2) in the vegetable kingdom, as stimulation; (3) in the animal kingdom as stimulation, and also, in its higher forms, as conscious motivation. Since it is independent of space, time, and causality, the will is indestructible and free. But the individual is transient; at death the conscious will is reabsorbed into the universal unconscious will.

Hartman tries to reconcile Hegel and Schopenhauer by conjoining intelligence with will as the twofold substance and ground of all being. "The real is the willed idea." But the immanent purpose or design is unconscious. The unconscious soul of the universe acts not only with physical but also with logical necessity, and is, therefore, absolutely wise. This theory, though an advance on Spinoza and Schopenhauer, fails to account for the facts of consciousness and of history, in which freedom is manifest. The significant fact remains, however, that throughout the later philosophy Force and Will are identified, thus furnishing a possible prophylactic against the materialistic drift of the age. Let it be proved that Will is intelligent and free, and Force can no longer be worshipped as the blind tyrant-god of the universe.

5. It is a principle of mechanics that energy is neither increased nor diminished by deflection. The law, as given by Professors Tait and Stewart, is that "a force acting at right angles to the direction in which a body is moving, does no work," expends no energy. The correlated principle of mental action would be that the free-will, in diverting the stream of natural tendency, neither adds to, nor takes from, the sum of energy in the universe, and so does not contravene the law of conservation of force.

E. D. Cope, an able defender of morality on the basis of monism, says, "The act of willing consumes energy, but the direction given to the execution of that will, has no mechanical equivalent. The amount of thought can be measured; the quality of thought cannot. Consciousness has a field of its own where it ranges free from the bonds of energy." This fact he pronounces the most important known to man, since herein lies the

possibility of turning the forces of life to good ends. This idea is not essential to a rational cosmology, but is of value as against objections to freedom of will raised on the ground of the conservation of energy.

6. Permanence of form demands persistence of willed force. *Cessante causa, cessat effectus.* Permanence of character, in like manner, requires continuous effort of will, as essentially free throughout as at the first choice.

Evolution, it is time to say, is an unproved but admissible hypothesis to explain the genesis and history of the known universe. The general theory has gathered so much cumulative evidence in its favor that the great majority of scientific men in all lands accept it in some form. It gives a new point of view from which educated mind more and more regards the universe in which man is an inhabitant, thus changing the relations and proportions of all things. It must be reckoned with in any attempt to explain the facts of life in our world. Without assenting to the peremptory claims of the partisans of this theory, and always rejecting its atheistic and pantheistic interpretations, we may draw from the principles urged by its supporters cumulative argument for actual freedom of will, both divine and human.

The universe, as we know it, must have had a beginning. The fact of the dissipation of energy always going on under the lead of "the great communist of the universe"—heat, proves that the present order of things has not existed indefinitely, under the agency of laws now at work. A starting impulse must have been imparted by a Power above nature. Breaks in the ongoing order have occurred which also demand the action of a supernatural Will to resume the process. The gaps between the inorganic and the organic, non-living and living matter, insensate and sentient existence, cannot be spanned by an evolving potency in matter. Consciousness, Du Bois Raymond proves, can never be explained by physical conditions. The monistic theory of evolution, according to Virchow, Cocker and many other scientists of authority, has not succeeded in filling up the chasm between the anthropoid ape and man, even in the line of morphology. Could the physical connection be proved,

the psychological continuity of man with the ape is undemonstrable. Man, as a moral being, is of another order of existence, whose chief attribute is free-will. His spiritual origin must be ascribed directly to the infinite, personal Will that underlies and energizes the whole process of evolution.

Is it possible, we now ask, to trace the history of moral freedom in evolving nature? This problem must challenge the keenest interest of every one awake to the issues in question.

In the primeval cloud-ocean of cosmic matter, motion is the first postulate of evolution. Whence motion, and why? To assume it uncaused, is to assume the basis of the entire theory. Causeless change in the original status is inadmissible. A chance beginning implies a chance world, which is contrary to fact. No power, no motion. But what the *primum mobile*, *τὸ πρῶτον κινοῦν*, really was, science cannot possibly tell us. It can measure and explain the potencies of energy, but the original potentiality is beyond the scope of its utmost vision. The explanation given by the writer of the first chapter of Genesis, even if we call his method pictorial or poetical, is both scientific and satisfactory. No other cosmogony meets the demands of science itself so well as this chapter, when it affirms that the Spirit of God with brooding insistence "moved upon" the chaotic infinitude of homogeneous matter, and that then the formative forces of the universe had birth. There, in one word, is given the historic origin of motion, of which all cosmic forces are correlated derivatives. Light was probably the first product, then heat, then every mode of motion. The ascending scale of forces, mechanical, chemical, vital, mental, spiritual, were thus by the hand of God strung upon the harp of creation, ready for the strange antiphone of good and evil, which shall at last become the celestial anthem of redemption.

Objectless motion, however, could not produce ordered form and sequence. Direction is indispensable, and this is the essential function of will. Not force alone, but guided force, brings the "Majestic" on her defined course over the trackless ocean to a particular harbor.

The tendency to vary is the first condition posited for the evolution of species. What is there in atoms which necessitates

variation? Even if indefinite motion happened to produce change of form, why would not matter at once revert to its preceding form or formlessness, unless persistent will urged the atoms, against their inherent inertia, into ever new combinations according to definite laws? Sir William Thompson's vortical theory demands creative impulse for the production of each separate atom in the original, continuous frictionless fluid. The genesis of every molecule requires similar intelligent agency. "Manufactured articles," as they have been called, do not happen into shape in any portion of the universe we are acquainted with, without manufacturing skill and purpose.

In the process of development, will emerges at once in the conflict with conditions. Why does not the atom or the organism give up the strife at the outset? Conative power must be or have been imparted from without to initiate and maintain the self-preserving struggle. The higher the form, the more complex the organism, so much the sharper is the strife and freer the action. Inorganic nature, having no freedom of its own, manifests only the external directive agency at work upon it.* The same may be said of non-sentient organisms. But self-guided will appears with life, and attains a higher and broader scope of choice at each advance of living organic form, till, in man, volition reaches a degree of freedom that likens him to the Creator.

Natural selection breaks down under the burden put upon it of accounting for the marvellous and purposive intelligence displayed in the order of nature. Whether or not adaptation involves final causes, the goal and the process of evolution neces-

* Thomas J. Edison has recently reasserted an ancient theory, of interest as it shows the inventor striving to get below phenomena and their mechanical relations, to their causes. "The atom," he is reported to have said, "is conscious if man is conscious, is intelligent if man is intelligent, exercises will power if man does, is, in its little way, all that man is." This is important news, if true, from the world of the infinitely little, but, like much other information of the sort, impossible to verify. The great inventor apparently forgets that the atoms which come from the dinner-table to feed his active brain, have no discoverable power of thought or will until they have first been taken into his system by superatomic volition, and then, under the magic of the life principle, which not Edison nor any other man has ever been able to produce or explain, made a part of his thinking brain. The life, the thinking power, the will force, have all come into the atom from a higher sphere.

sitate a Designer of infinite wisdom and an immanent Executive of infinite will. All science was in the First Mind, or it could not get into human minds through the translating medium of nature. God geometrizes. God is the master Artist. God is the unerring Logician. The laws of nature imply a Lawmaker. The struggle for existence cannot account for either the mechanical principles, the laws of crystallography and chemical combination, the beauty of nature, the æsthetic sense, the ethical constitution of man, or the moral order of the universe. It makes little difference in the argument where we insert originating causation, whether at the outset of the evolving process, at occasional points within it, or all along the line. Involution is the proper dynamic term for the theistic theory of development. More comprehensive still, if admissible, would be the compound term, formed after Greek precedent, Inevolution.

Plato may be right or wrong; being may precede or may attend becoming: executive will is indispensable to work out the basal idea from first to last. Goethe said that we never catch the idea in the becoming, for "when we see anything become we think it was there already." Spencer would not agree to this; but in either case the result proves both purpose and immanent power.

The tendency in nature towards the better, boasted by evolutionists, implies will directed by wisdom and goodness. In fact, as the opening sentence of Kant's "Practical Reason" affirms, the only real good is good-will. Variability alone might as well tend towards the worse. The disposition of nature, divorced from the Power that makes for perfection, seems to favor degeneration. Incessant effort, on the part of God and man, is necessary to resist the downward trend of things, and lift the world ever so little to a higher level. Progress is in a spiral, with many a bend and break, because of this conflict of the upward and the downward tendencies. Dualism is a plausible theory, but incomplete, and, therefore, untrue. Divine will, consecrated to the best, is supreme, and slowly triumphs. The principle of progressive evolution demands and splendidly illustrates this fact. When, however, the theory denies or ignores supernatural Will, it uts itself off from the only fountain of directive energy

which can account for its contents of purposeful intelligence, and leaves itself like the bed of a majestic river without a drop of water. George Eliot uttered a sentiment marked by deep insight, when she said to Darwin that the process of evolution interested her but feebly compared with the awe she felt before the mystery it veiled—the mystery, must it not be, of infinite mind and will forever at work in the universe.

The history of man in the known environment of our planet gives definite proof of the freedom of human volition. The brutes have no proper history. They run their little round essentially the same in historic and pre-historic time. Man has wrought out his own career in every age, and made marvellous advance in many ways as the centuries have unrolled. How he came by his freedom, neither science nor philosophy can tell. An evolution of free-will is possible, but only on the basis of immanent creative Will sharing the divine prerogative with the creature. The Eternal might well have been dissatisfied with a puppet universe. God may have craved the society of beings so empowered as freely to respond to His thoughts of wisdom and deeds of love. And thus, when He had brought forth a fit organism, "fearfully and wonderfully made," and none the less so if formed and perfected through ages of careful development for this one end, He may have presented to His highest creature,—sensitive, intelligent, and already possessing a non-moral power of will,—some alternative involving right and wrong. It would most likely be in some matter of personal trust and obedience toward the Creator Himself, and might as well concern an apple as an anthem. It would probably be in the sphere of common, every-day life. And then, with all the possibilities of the divine sonship or of demonhood trembling in the balance, the Maker may have said to the thing made, but not yet man, "Choose!" A higher potency of will may have been at the moment imparted or awakened, together with a quickened moral sense. The effect would be as though God said, "Let there be Right!" and, henceforth, to the conscious thought of this exalted creature, right was. Whatever the attendant process, then, and not till then, man was born, as a moral being, in the essential image of God. Free-will is the creative faculty. "Every act of volition,"

according to Professor Harris, "is a kind of creation *ex nihilo*." This faculty carries with it the potentiality of holiness. Possessing it, man exists in the formal likeness of God. Exercising it for divine ends, he attains moral godlikeness.

Possession of any power is proved by its exercise. Every man is actively conscious of choice among motives. The most perfect clock could never say, "I will." But any sane man, any child who has learned that "I am I," knows that he can and does say it. Perception does not involve volition. Apperception does. Among conflicting objects of perception every one of us has the power of fixing the attention upon one to the exclusion of the rest. More than this, each human being has power to do the one thing that should be done, and to leave the other undone. Browning's theology is near enough the truth when he writes:

> "God, whose pleasure brought
> Man into being, stands away
> As it were a handbreadth off, to give
> Room for the newly-made to live,
> And look at Him from a place apart,
> And use His gifts of mind and heart,
> Given indeed, but to keep forever.
> Who speaks of man, then, must not sever
> Man's very elements from man,
> Saying, 'But all is God's'—whose *plan*
> Was to create man and then leave him
> Able, His own Word saith, to grieve Him
> But able to glorify Him, too,
> As a mere machine could never do.
>
> . . . . . .
>
> Man, therefore, stands on his own stock
> Of love and power as a pin-point rock."

The Deity is not a subject of evolutionary conditions. But the idea of God in the mind of man is a matter of progressive, divine self-revelation. This idea could not have come out of nature, for the universe, as Pascal affirms, does not think. It could have entered man's mind and grown to its present proportions only as revealed by the Author of mind. A progressive Providence has given mankind advancing lessons in the knowledge of God's thoughts and ways. Graduated revelation for the

education of the race presupposes and appeals to the responsive will of man. It furnishes the highest motives of action, to influence, not to coerce.

The appearing of great men, from time to time, to take a leading part in human progress, is not wholly explained by heredity plus environment. Genius, intellectual or religious, is probably a supernatural gift to the world. It brings an increment of mental or spiritual force into history that can hardly have come from the factors already at work.

Even if the rare occurrence of great leaders of historic development could be explained by natural causes, One Man has lived who could not have been the mere product of evolution. Jesus Christ is the consummate flower of humanity; but the forces which might supposably account for all other beings on earth, are utterly insufficient to produce a character so immeasurably above the best of mere men. The theory of Renan has been dismissed from court. There in Palestine, near nineteen centuries ago, was a plain inroad of the divine into the then fast-sinking course of human development. Yet the Christ was not a passive instrument of Deity. His twofold will was freely consecrated to a work impossible for any or all merely natural forces to accomplish. And ever since, His personal work has been going on among men. The *gesta Christi* of nineteen hundred years defy the philosophy of Buckle and Draper.

Near the close of Herbert Spencer's "Data of Ethics," the author unintentionally furnishes a remarkable line of proof from scientific deduction, that Jesus of Nazareth, being what He actually was, must have been more than man, and that He must also have introduced and embodied a moral force new to this degenerate world. "In the first place," he says, "given the laws of life as they are, a man of ideal nature cannot be produced in a society consisting of men having natures remote from the ideal. As well might we expect a child of English type to be born among negroes, as expect that among the organically immoral, one who is organically moral will arise. . . . In the second place, ideal conduct is not possible for the ideal man in the midst of men otherwise constituted. . . . A mode of action entirely alien to the prevailing modes of action, cannot be success-

fully persisted in—must eventuate in death of self, or posterity, or both." This passage recalls Plato's description of the probable fate of the just man, and emphasizes the power of consecrated will which alone enabled "the man Christ Jesus" to meet and subdue a world in arms.

The same line of reasoning makes for the reality of regenerating and regenerated will-power in the life of every man who submits to this new force from above. Every Christian is, so far forth, an original creation. He is a "new creature" in Christ Jesus. Each saint is a spiritual genius, whose character is a fresh product of supernatural forces. All life is the gift of a higher realm to the lower. New spiritual life is the clear incoming of divine power into the soul of man. He is born anew "not of blood, nor of the will of the flesh, nor of the will of man, but of God." Yet every unregenerate person is such because he refuses to admit the life from above. His will does not respond to and coincide with the will of God. "Ye will not (*ου θέλετε*) come to Me that ye may have life." Man has the awful power to say No! to God. He has also potential ability, which with divine help becomes efficient power, to "return from his way," that he may live and not die (Ezek. xviii.). Conversion, though it be a content or a consequence of the regenerating act of the Holy Spirit, is, almost without exception, represented by Scripture as an act of man himself. Wholly dependent on the gracious agency of the Divine Spirit, he must, nevertheless, put forth the most strenuous effort of will he is capable of in turning from sin to God. Prevenient grace does not destroy freedom or remove obligation. In exalting divine sovereignty, the Bible never fails to recognize human autonomy. Any theory of evolution, any theological system, which takes away essential moral liberty, is contrary to the Bible, to Christian experience, and to the spiritual history of mankind.

"Unless above himself
He can erect himself, how poor a thing is man!"

Every step and stage of spiritual advance, every conquest of the lower nature and of surrounding evil, and that renouncing of dear self-will which found its highest exemplification in Gethsemane, demand the utmost energy of consecrated will-

power. To say from the heart, "Not my will, but Thine, be done" is the *ne plus ultra* of free volition. Self-sacrifice is the culmination of freedom. Calvary saw the highest manifestation of both which the universe has ever known. The cross is the divine symbol of the voluntary offering of self for others. Whenever man follows his Lord in the *via crucis*, he gives unanswerable challenge to the mechanical theory of human nature. The crucifixion of self, in the spirit of the Crucified, is not an episode in the struggle for life. Christlike self-abnegation is the exact opposite of natural self-preservation.

Secular altruism may have its recondite source in an inherited impulse sprung from a habit of seeking the general good from prudential motives. But this was not the spirit that moved Paul to wish himself, even by hyperbole, accursed from Christ, if that would save his racial kindred. Neither is it the motive which impels the true missionary of the cross, or the martyr of life-saving compassion. The real Christian makes the consecration of himself without condition. He abjures the underthought of completing or clinching Christ's atoning work. Every straight-out act of self-devotion done in this spirit, is square against the principle of natural selection in the moral sphere.

The survival of the *unfit* is the direct aim and work of the Gospel. God, angels and good men join hands to rescue those who have broken the line of healthful heredity, and so have put themselves out of harmony with the life-giving environment of the soul. The saving work calls for the energy of personal will at every step. The divine decree doubtless comprehends the involution of human agency, but the will of man in action is an essential part of the process. It must come into play at the proper point, with all the force of positive freedom. The Bible is bold to the extreme in its appeal to human free-will.

Character of positive type is always the product of the conflict of personality with a hostile environment. Mechanical causation leaves no room for character. Moral causation is a very different thing. Certainty is secured in either case. In the first, however, it is an unmoral necessity; in the second, it is a moral certainty consistent with free-will. This distinction marks the broad difference between mechanical and rational or Biblical

determinists. Much confusion and conflict would be avoided by remembering that causation is not necessarily compulsion. Sociological statistics, relied upon to prove the theories of the mechanical psychologists, always show a shifting margin of difference in the sum of suicides, marriages, specific crimes or other subjects of comparative study, through a series of years ; amounting in some cases to more than twenty per cent., amply sufficient to give room for the free action of individuals under the influence of general conditions.

There are, as Delitzsch well says, two kingdoms in the universe, the kingdom of nature and the kingdom of liberty. In the first, the natural laws of the world-system have sway. In the second, there is a reciprocal working of God and His free creatures. In this, "a moral system which interferes in the course of nature, and makes it serviceable to itself, has sway." For the producing of holy character, God breaks into the order of nature with disclosures of Himself, which have the force of new motive power to enable man to resist the natural tendencies of a depraved physical and spiritual condition, and, in his turn, to rise above nature, break the continuity of evil, and prove his real freedom by submitting his will to God's perfect will.

The ultra individualism born of the Protestant Renaissance has given place to a mechanical materialism, which under the name of Positivism enchains the intellect, and of Socialism leads society towards the state presaged as the "Coming Slavery." The theological pendulum earlier reached the fatalistic extreme, and now reacts to the side of freedom. In this tendency we may see the manifest influence of the Divine Spirit swinging the weight of Christian thought against the stress and pull of atheistic thought. There is a divine *Zeit-Geist* as well as a diabolic spirit of the age. And "where the Spirit of the Lord is there is liberty," that liberty which freely accords with law.

Scriptural determinism comprehends in harmonious union both sides of the great alternative. Man is free, though conditioned. He has a limited liberty sufficient for the production of character. He is environed by forces which have a shaping influence upon him and his destiny ; but he can modify, and also ex-

change, his environment. More than that, he can admit new spiritual forces into his soul that will make him conqueror in the struggle for life eternal. He can "hitch his wagon to a star," and by his celestial Guide be drawn out of erratic and destructive orbits into the infinite harmony again.

DR. M. ALLEN STARR sent the following comment, which was read by the secretary:

In the interesting paper of Mr. Edwards, the arguments for Freedom of the Will are stated with clearness and precision; and a wide range of facts—many of them of recent discovery—has been traversed in the argument.

In discussing such a subject the fundamental fact is the psychological standpoint of the debater.

If we admit the testimony of self-consciousness—if we concede the validity of our personal experience that we have the power of choice—then there is no need of argument. It is as useless as an argument to prove the axioms of Euclid. If, however, we regard the testimony of self-consciousness with distrust—if we consider consciousness as a result and product of brain action—present when the brain is active; absent when the brain is inactive—increased in intensity when the brain is excited; dim and uncertain when the brain is depressed or resting, or in a state of impaired activity—then the assurances of any conscious freedom become questionable. From this standpoint, the appeal to consciousness for an answer is a begging of the question.

From the standpoint of the evolutionist there are degrees of consciousness—from the lowest manifestation in the blood cell, which seems to find the seat of inflammation in an ulcer and do its little best to repair the damage to the body, up to the highest manifestation in a philosophical discussion. All life is endowed with consciousness, and that of man is not different from that in other animals, excepting in degree and range. Consciousness is a function of brain tissue, or rather, of gray matter in the nervous system anywhere. If that gray matter is excited.

either artificially, by electricity applied to the brain, or by disease, a conscious perception takes place. Press your finger on your eye in the dark and you see a light, though you know there is no light. Develop insanity, and you see faces and figures about you, you hear voices speaking to you—as real as any face or voice you have ever perceived or heard—but wholly illusional. Consciousness cannot in these cases distinguish between the real and the false. But it is as futile to argue with a lunatic who thinks he sees a devil as it is to argue with one who appeals to consciousness when you dispute the freedom of the will. Both assume the trustworthy character of consciousness, and argument is out of place.

There is, therefore, no room for debate on the freedom of the will until the fundamental question is settled—Is mind a function of matter, or is it independent of matter? Into this question we cannot go.

One fact, however, of some interest in this connection may be related which has not been touched upon by Mr. Edwards. It is well known that the phenomena of hypnotism have thrown much light on mental activity. The article of Professor James, of Harvard, on the Hidden Self, in *Scribner's Magazine* for March, 1890, may be read by those who care to see how much such study reveals. I will relate one fact within my personal knowledge. A subject when hypnotized is virtually asleep, and has on waking absolutely no knowledge whatever of what has been said to or done with him during that sleep. But if, while asleep, he is told to do a certain thing when he wakes, he will inevitably do it, and, when questioned, he affirms that it has been a voluntary act. I have hypnotized a subject, told her to do an act of a complex character on waking, been assured that she had no recollection of any orders given in sleep, seen her on waking hesitate, apparently debate whether to do it, then go and do it with evident reluctance, and yet, on being questioned and cross-questioned, affirm that the act was entirely voluntary, done of her own free will, not done under any feeling of compulsion, that she had thought it over and *chosen* to do it. Here, then, is positive proof that in such a case the consciousness of freedom of the will was wholly untrustworthy. Is there any

reason to believe that in ordinary conduct a disregard of subconscious motives may not mislead us in the same way into a false assurance of freedom of the will? And is it not true that, granted a complete knowledge of a man's character, education, training and environment, one can reasonably predict what he will do under any circumstances? Foreknowledge is not impossible to God.

Regarding, therefore, the testimony of consciousness as entirely untrustworthy on this question, we are thrown back, in determining the freedom of the will, to a study of motives and to the problem of the conservation of energy. And from this standpoint necessitarianism appears to the evolutionist the only valid doctrine.

Read from this point of view, Mr. Edwards's argument tells as strongly against freedom of the will as in its favor.

At the close of the reading of Dr. Starr's communication, D. S. Gregory, D.D., made the following remarks:

The paper of Dr. Starr illustrates admirably the general method, from the point of view of the evolutionist, of treating the subject under discussion. That method is to ignore the unquestioned facts, play fast and loose with fundamental principles, and deal in assumptions and assertions.

Now the unquestioned fact here is that our consciousness gives assurance that we have the power of choice. Mill, Spencer and all the rest agree on that point.

As this ultimate fact of our consciousness of freedom cannot be directly denied—as the critic admits—he must somehow discredit the witness that vouches for the fact. His method of discrediting consciousness is the usual one. It starts with an "if": "*if*, however, we regard the testimony of self-consciousness with distrust." What then can we trust in the matter? This is discarding the only possible witness. It proceeds with another "if," and the evolutionist assumption: "*If* we consider consciousness as a result and product of brain action." Now there is not a particle of valid evidence in favor of such an assumption.

Conveniently forgetting its *ifs*, and assuming its baseless hypotheses to be undoubted truths, it advances to the sweeping conclusion : " From this standpoint the appeal to consciousness for an answer is a begging of the question." *Facilis descensus Averno.*

The critic then parades the usual stock instances of the irrational or abnormal action of consciousness, to give some coloring of reason to his assumption and conclusion, confusing the dawning animal consciousness of sensation with the action of rational self-consciousness, and citing abnormal nervous affections, insanity, lunacy, hypnotic experiences, etc. There seems to be but one omission, and that is the experience, to which Mr. Mill and Mr. Spencer appeal so confidently when there are absolutely no accessible facts,—the experience of the " first dawning consciousness of that wonderful traditional ' infant.' " But what is the value of all this? Why go to the confessedly *abnormal* in mental action to learn what is *normal?* If we wish to study human reason, in its normal character and capacity, we do not go for our facts to the idiot or the madman, but to men in whom the reason is in its normal condition. The citation of such abnormalities, in the way of argument, is worse than worthless, and the triumphant conclusion from them—that " there is therefore no room for debate on the freedom of the will until the fundamental question is settled, Is mind a function of matter, or is it independent of matter ? "—is simply preposterous. It is the same juggling by which the testimony of the senses is discredited by appealing to the perceptions of the color-blind, to the drunken man's visions of demons, and all that.

The fundamental principle,—that must be postulated before either science or philosophy can take even the initiatory step, and reaffirmed with every succeeding step in the progress of thought,—is that the trustworthiness of the mental faculties, when in their normal condition and activity, is to be accepted as the starting point, and that their normal deliverances are to be accepted and trusted. This is not merely the only barrier to agnosticism and intellectual suicide, but the sole road to knowledge.

If that is accepted, the freedom of choice—as the critic sug-

gests—needs as little proof as the axioms of Euclid. Now how is it to be escaped? The evolutionist assumes that consciousness and everything else are the products of matter and motion and force. He undertakes to evolve everything from these. But how does he know anything of matter and motion and force except through the working of his mental powers as revealed to him in consciousness? He trusts consciousness to prove that it is to be distrusted! Now he cannot *find* force, or *know* force, or *measure* force, except as his own consciousness reveals it to him in the conscious exercise of will. He can only arrive at the laws of matter and motion and force by accepting the testimony of his mental faculties as presented to him in consciousness. The parading of his abnormalities to prove that consciousness can not be trusted is reversing the rational order of things and appealing from "Philip sober" to "Philip drunk"! If consciousness lies in the one case, much more in the other. There is no escape: *Falsus in uno, falsus in omnibus.* And this, even if the appeal were to the normal against the normal, instead of to the abnormal against the normal. The evolutionist always reminds one of that son of Ham who went out coon hunting and after treeing the coon and driving him out on the end of a limb, deliberately proceeded, while seated upon that limb, to saw it off between himself and the tree. He naturally heard "something drop." The only difference is that the darkey found it out, but the agnostic evolutionist does not seem to find it out.

But admitting, for the moment and for argument's sake, the untenable hypothesis of evolution, what is its bearing on the question of freedom of the will?

The theory of the will in connection with this subject of freedom depends upon the relation of motive to volition. The old hypothesis is that of *causation.* The relation of motive and volition is that of cause and effect. That is necessarianism, fatalism, determinism. If a cause is present the effect follows immediately and inevitably upon it. There can be no more freedom about the turnings of will than about the turnings of a windmill, because there is no more voluntary power in man than in windmill. To escape this, some have adopted the hypothesis of *indifference.* The relation of motive and volition is that

of precedent and subsequent, of before and after. For, if any motive whatever predominates, or tends to turn volition in any particular direction—since it is assumed to act as a cause—there can be no freedom. In order to freedom of choice, the man must be like the traditional donkey, equidistant between two precisely equal bundles of hay, with this added feature, that he must have absolutely no appetite for either! That is indifference, caprice, unreason. There can be no more freedom in such action than in the movement of a feather in the air, because there is no more rationality in the action of the man than in the action of the feather. The only refuge is in the theory of *rationality*. The relation of motive and volition is that of reason and consequent, or reason and conclusion. The motive is before the mind as a reason. It is not a cause, for if it were its action would be immediate and inevitable; but you can have a powerful motive before your mind days, months, years, all your life, without any volition in the direction in which it rationally tends. You are free; you are sovereign in your freedom. You reach your conclusions, choices, purposes, as a rational being, in a rational method, *i. e.*, by deliberation and in view of reasons. Now, if evolution, as Mr. Spencer defines it, be true, then the hypothesis of causation is the only one possible in the case. Matter and motion and force sum up the universe. There are only blind force, inevitable motion, and necessary law. But the testimony of consciousness is wholly in favor of the third view, that of rationality. There is no escaping it, the relation is that of reason and consequent; the process a rational one; the choice and action free. And so the evolution hypothesis of will is shattered upon the ultimate facts and the fundamental postulate.

But the momentary admission must be taken back. The interesting and able paper of Dr. Edwards, to which we have listened, concedes vastly more than either science or philosophy warrants. The facts are against evolution. The great authorities in science and philosophy are against it. Virchow, the great scientist—infidel though he is and desiring its truth—calls its advocates "bubble companies." St. George Mivart, scientist and philosopher, pronounces it a "puerile hypothesis." With

both facts and authority against it in the court of reason, its claims are quashed. Such being the case, we cannot afford to make evolution the starting point in our apologetic reasonings. It is a strategical mistake, to say the least. The ablest reasoning along that line cannot lead to just conclusions.

Of course, there is only time here and now to hint at one or two fundamental defects and distinctions. To say nothing of the absurdity of its logical processes, there are two distinctions which, when clearly grasped, make perfectly manifest the two capital and fatal defects of the scheme of evolution.

The first is the distinction of the forms of power. There are in nature (as including man) at least three forms of power, essentially different, and toward the identification of which science has not taken even the initiatory step, but which are separated, as DuBois Reymond assures us in his "Seven Insoluble Problems," by impassable chasms. There are the physico-chemical or mechanical forces with their laws, entering into the universal system of mechanism; the vital force, making use of, contending against and dominating the mechanical forces, transforming mere matter into formed matter, and weaving, as if with omniscience, the universal system of living organisms, vegetable and animal; and mental or spiritual power, manifesting itself in rational movement, process, action, product, and resulting in the universal system of consciousness, rationality and morality, superposed on and dominating the mechanical and vital. I say that science, according to the acknowledgment of the greatest of the exact scientists, has not even taken the initiatory step toward identifying, or showing the convertibility of, these three forms of power. And yet Mr. Spencer and his followers assume that there is only one kind of force, and that mechanical force! It is, to say the least, an amazing assumption, and baseless as it is astounding.

The second distinction is that between *development* and *evolution.* There are abundant scientific and philosophic grounds for belief in development, but none for belief in evolution. I have been a believer in development nearly all my life. I found my starting point when a boy in reading Jonathan Edwards's "History of Redemption." My view has been enlarged, rectified and

confirmed by a good deal of patient reading and thought, but especially, and more than by anything else, by the careful reading and critical study of the indefinite, inconsequent, incoherent thinking of Mr. Spencer and his friends. Next to Mr. Spencer's failure to grasp the essential distinctions, I place his failure to adhere to the distinction between development and evolution, and his consequent failure to present a tenable hypothesis. Mr. Spencer begins well with definition: "Evolution is a change from an indefinite and incoherent homogeneity to a definite and coherent heterogeneity through continuous differentiations and integrations." He distinguishes it carefully from "development," which is the orderly unfolding, as of a germ, or scheme, or plan—the unfolding of something infolded. He eschews this. He will have none of it. There is no involution to prepare for his evolution; no rational and orderly cause to account for the movement and orderly result; evolution furnishes only a "change" to account for it all. Unfortunately, such a philosophy is good for nothing; for it is just this "change" that needs to be accounted for. There is the height of wisdom in such philosophy! Men ask: "How shall we account for these *changes* of the universe?" The response is: "By a *change!*"

If you will examine Mr. Spencer's "First Principles," and his other works, you will find that he uses "evolution" only to juggle with, to keep up the illusion that he is presenting a system of evolution. All the illustrations he uses are instances of development. The conclusions drawn are only legitimate on the conditions of the truth of his assumptions and of the theory of development. Aside from what truth is in this way incidentally introduced into it, his whole system is a process of passing all the impassable chasms—from the homogeneous to order, life, sensation, and reason in all its forms, in short, to the completed universe, mechanical, vital and rational—*by the deft substitution of semi-synonyms.* You will see that all the fact and truth in the scheme that have given it its hold upon recent thought, it has borrowed or stolen from the rational and scientific scheme of development. Without that it would scarcely have won the respect of even the loose thinkers who have advocated it, and

history would never have had to record the "evolution craze" of the nineteenth century.

In fine, profound thinkers are fast coming to see—witness the case of Dr. McCosh—that a rational scheme of development alone meets the requirements of true science and sound philosophy. That takes into account all the facts and forces. That embodies and explains all that evolution explains, and besides that, all the vast region of life and reason, of rational and moral order, of power, fact and activity, natural and supernatural, that evolution fails to embody and explain. We cannot, therefore, admit the claims of evolution, and would not base our apologetic reasonings upon it.

THE OUTLOOK OF THEOLOGY.

[Delivered before the American Institute of Christian Philosophy, August 7th, 1891.]

By Charles F. Deems, D.D., LL.D., New York City.

THEOLOGY is a human science, just as astronomy is. The latter consists of the facts of the stellar universe as observed by man and classified by human skill, together with a generalization which formulates the laws of those facts. The same is true of geology, chemistry, or any other science, according to its objects. Theology is the formulation by human intellect of all that it can learn of the facts of God. If there be a God who is the First Cause, He must be the Creator of all things in heaven and in earth. The field of theology, therefore, is boundless. Whoever makes any contribution to any science in any department must thereby make a contribution to theology. It follows that theology must be a progressive science. It can never be considered as finished any more than astronomy, which is a progressive science. Theology must be more progressive than astronomy, its boundaries being enlarged in some measure by the enlargement of the boundaries of any of the other sciences.

That which distinguishes theology from every other science is this: that it is impossible to make the slightest advance in any

department of any science without making a contribution to theology. That gives theology its great dignity and makes it the *scientia scientiarum.* The facts of the universe do not change, but men's knowledge of them does. Facts may exist without a man knowing them, but his science depends upon his knowledge of the facts as things done or made. The facts of God are something which God has done or made. If God is not the author of the Bible, then the Bible can make no contributions to theology. The absolute facts of God are all that we have as materials for the construction of theology.

Was the physical universe created, or is matter eternal? This is a question of abstract thought. The very moment we come to the consideration of the possible hypothesis of a Creator we enter on the beginnings of theology. We pursue a theological investigation when we ask the question, Is the authorship of the Bible in God or in man? If it be settled that the Bible is of human authorship, like Dante's "Inferno" and Milton's "Paradise Lost," it ceases to be of any more importance in theological study than either of those books. A thinker who believes that God is the original Creator of that which is developed into all things will be interested in the Bible as he would be in a locomotive as being a product of a product of God. If he belong to a certain school of thinkers, the interest in the poem or locomotive will be still further removed from God, because in that case it will be a product of a product of a product of God—God being considered the Creator of simply the first of everything, from which has sprung everything else, including humanity with all its generations.

As materials for theology there is a difference in the values of nature and the Bible. The facts of the former have to be gathered through long cycles of observation, while in the Bible they lie patent in print before the eye. If the Bible be the work of God, God therein does for man what man could not do for himself nor of himself, even with the aid of nature, through any period or by any kind or amount of study. It brings to sight like a telescope the truths too far off for the naked eye of the mind, besides doing in the department of natural theology what it would require cycles upon cycles of scientific study to discover

from any natural facts. The destruction of the divine authorship of the Bible, therefore, would throw down a very large portion of the structure of theology. This is so apparent that all men who think on the subject see how profound an interest there is in the question, Is God in any sense the Author of the Bible or any portion thereof? If "Yes," in what sense and in what portions? We thus perceive that there is a double outlook to biblical theology: first, as to the extent of authority of the Bible; and, secondly, as to its significance. So the destruction of the divine authorship of nature would throw down a large portion of the structure of theology. If divine authorship be denied to both nature and the Bible, then theology is eliminated from human studies.

Studies in theology naturally divide themselves into (1) examinations of the vehicles of God's self-revelation, and (2) studies in the contents of those media of communication. The former is ordinarily called criticism, and the latter science.

In regard to the older Bible, Nature, students now seem more and more to consider it not as a thing existing by itself—of which it affords no evidence—but as something produced by one for another, as a book is produced by an author for a reader, of which it affords abundant evidence growing larger and clearer as more and better study is given it. Now that very characteristic of its nature gives form and coloring to the theology which comes of study of the physical universe. If the universe be regarded as self-existing, then men might hold to evolution, which is distinctly non-theistic, if not atheistic, not requiring a God for the reason that it is founded on the assumption that the possibility and potency and promise of all things reside in matter as matter. This has always proved unsatisfactory from a highly scientific point of view, because as a hypothesis it necessarily leaves so many facts unprovided for; but so soon as the physical universe is taken as a book, then every single fact discovered up to date and heretofore used to support evolution is accounted for, with the addition of the advantage of accounting for all those other facts scientifically discovered, which not only have hitherto failed to support evolution, but seem even to such minds as Mr. Darwin's to stand directly contrary to it. In this department, there-

fore, we perceive a growing disposition to accept the development theory, which accounts for all the processes in nature, not as *coming out*, but as *brought out;* not as the product of the automatic action of soulless matter, but as first put into matter by a Creator and then drawn out under His instant and constant support and supervision. The effect of this movement in natural theolgy is good every way. It not only leaves science free, but stimulates scientific research. It gives consistency to all intellectual effort in this department, and is a clew to a labyrinth which we should otherwise have to explore by groping. It gives vividness, lifeness, so to speak, to human study. The student is not alone with the Book. It is as if Plato should enter the room and assist the student who is striving to make out the meaning of some intricate passages of the "Phædo" or the "Gorgias." The belief in the Creator-God is increased by the feeling which every truly scientific mind perceives as pressing upon it—namely, that if there were no God, we should be compelled in the interest of science to invent one. I think the outlook on this side is very hopeful.

Now when we turn to the newer Bible, contained in what is commonly known as the canonical books of the Old and New Testaments, we are in the department of criticism. The outlook here shows a resolute determination upon the part of many astute and strong thinkers to submit the book to precisely the same kind of examination as that to which are submitted all the books now coming fresh from the press, books that acknowledge authorship in all departments of literature. It is as if one examined the ark of the covenant, not looking on it with eyes of reverence, but handling it, taking it apart, putting the knife into it, ascertaining what is the fibre and grain of the wood, measuring it with tape and yard-stick, and weighing it on scales and submitting it to examination to ascertain whether the sides, the bottom, and the top are composed each of one piece or more. To those who worship God in the "ark," this would seem to be an intolerable operation. If a man had devised it for the residence of his dignity, he might resent such a procedure; but perhaps God does not. The patient God, who makes an ark not for the ark's sake, but to be a residence of His mercy; not for that mercy's sake,

but for the sake of men, may be quite willing that that repository shall have the most thorough secular examination if it result in making men more and more believe and trust the divine mercy therein enshrined.

It seems to me that there need be no distress in any mind in regard to this procedure. When Jehovah moved before Israel in that which was a pillar of cloud by day and of fire by night, a devout Israelite need not have been disturbed if some scientist felt disposed to enter upon an examination of that pillar to ascertain whether its substance was fume or vapor; so long as it retained visible shape sufficient to be a guide, so long as it illuminated the camp by night, so long as its motions could guide to the times and place for the pitching and the breaking of the camp, so long it would discharge the functions necessary for God's guidance of His people ; and that is all God intended it for. It is easy to perceive that the cloud in the desert was not necessary to the existence of Jehovah's power and glory, but that it was necessary for the people who beheld it. It is very manifest that the ark of the covenant was not necessary to the existence of God's mercy, but that it was helpful to the people who saw it as a reminder of the mercy of their God.

So we need not worry because men are treating the Bible as they would any other piece of literature. Either God is in the Bible or He is not. No man is any more interested than any other man in proving or disproving the divine residence. If God be there, all criticism will fail to eject Him; and if He be not there, no one has any more interest in making Him present in the book "Genesis" or the book "Isaiah," than in Motley's "History of the United Netherlands" or in Goethe's "Faust." Guesses, hypotheses, or theories of Pentateuch or Hexateuch, Elohism or Jehovism, one Isaiah or ten, ante-exilic or post-exilic date, cannot affect the influence over the human heart of any book whose content is felt to be of divine authorship. In physical science the hypothesis cannot change the facts. Whether the corpuscular or vibratory theory of light be maintained, light is all the same. Theories of inspiration may vary; but if there be a God-power in a book, or in a cloud, or in an ark, *men will feel it.* Theories of inspiration have varied from that of the di-

vine dictation of every single word in the written law and Gospel to that of merely generally good influence over intellects not preserved from all errancy. This may simply be a question of mode of divine authorship among men who agree as to the fact of divine authorship.

One of the latest indications of movement on this subject has been made by the reception of the new book, "Lux Mundi." A very short time ago there was a convention of members of the Established Church of England, in which was brought forward a resolution to condemn the teaching of this book on the subject of inspiration. That resolution was overwhelmingly defeated. This does not show any endorsement of the doctrines of that book, but it does show that the general mind of the Church of England is in such a state as can allow its members to set forth any possible doctrines on inspiration, while yet holding the Bible as, in some really strong sense, *the Word of God.* The scholars in the Wesleyan body in England have perhaps brought theology to a more reasonable form, to a more judicious union of what are called Arminianism and Calvinism, and to greater consistency with the Bible, than any other body of Christian thinkers. One significant occurrence among them is now reported. Recently in the city of London there was a large meeting of Wesleyan ministers, at which Professor Davidson read a paper endorsing "Lux Mundi," with its views of the Pentateuch, the two Isaiahs, the uncertain date of authorship of Daniel, and a denial of verbal inspiration. He congratulated the Wesleyan ministers that their creed contained no article defining inspiration, and that they put their religion on faith *in Christ*, and not on faith *in a book.* A motion was made to publish the professor's address. An amendment to print it only for the ministers was overwhelmingly defeated.

These two recent events indicate the general outlook of theology as to the book-vehicle of God's facts from which we are to make theology.

The phrase, "make theology," is used intentionally. Theology is a human fact made from divine facts. As the old facts of nature make new physical science, as the old facts of mind are used to make new mental philosophy, so improved views of the

old facts of the Bible will be used to make new theologies, and we have a right to hope better theologies. A man, or a body of men, in the nineteenth century, must be better prepared to formulate a theology than a man, or a body of men, of the same ability and piety, in the sixteenth century, because the former have all that the latter had, with the advantages of the learning gained in three centuries, in which there has been more quickened thought with more really vital and active piety than in any ten preceding centuries. No man in any century can make any new God-fact; but, as the centuries go forward, out of the same old fact or Word of God, as Robinson said in the cabin of the Mayflower, more and more light will come forth, and that increasing light will come because men's vision will be enlarged to receive more light.

In the meantime, let us be quite patient with one another. We shall obstruct the progress of truth if we do not draw the distinction there clearly is between the denial of a certain theory of inspiration and the denial of inspiration itself. If two Christian scholars announce their belief in the inspiration of the Pentateuch, one holding that Moses was the amanuensis of the Holy Spirit, another that each of the books was anonymous, we need not denounce the two scholars as heretics because we agree with a third, seeing that all of them agree with us that the real author is God. It is as if the question arose as to which of a number of secretaries employed by any man may have addressed us a particular letter; that is of little consequence, so that we acknowledge that our friend himself is the real author of the letter. Even if there be here and there an omitted word, a little break in a sentence, or a little obscurity in a phrase, the content assures us of the authorship. Because it concerns that which is known only to our correspondent and ourselves, we are sure that he must be the real, ultimate author of the letter. We need not be concerned about the fallibility of those whom we have reason to believe to be God's secretaries so long as we hold to the infallibility of God. Christ said, "The words that I have spoken to you, *they* are spirit and *they are* life"; we gain nothing by changing that into "they are letters and syllables." A word may be spelled differently at different times, and yet always be intelli-

gible and always mean the same thing. The author of the Bible is the author of nature and yet in nature we perceive breaks, imperfections, and apparently irreconcilable discrepancies. The farther and farther we press our scientific studies the more these both appear and disappear, and yet they do not at all shake our faith in the creatorship of God. So may it be with the authorship of the Bible.

The outlook now seems to be that the Bible is to be set free from many a theory of inspiration which has hampered it, and to be put in such a position that it may exercise over men the power of a really God-inspired book. As we advance in culture, that power, which has been greatly hindered by certain post-Reformation dogmatic scholasticisms, will break forth, and the Bible—God's Word—will ride on in splendor and scatter the mists which human weakness has made around it, as the rising sun dissipates the vapor which its rays encounter on the eastern horizon. In this department the outlook of theology is most favorable.

There is little space to speak of the state of doctrinal theology. The "denominations" are coming together more and more. The discussion of doctrines seems to be producing a fusing process. The word "denomination" points to a name. It means that in which one school of Christian theology differs from any other school of Christian theology, without any reference whatever to that in which all schools of Christian theology agree. I think I have heard this called "provincialism." Augustinianism, Lutheranism, Calvinism, Wesleyanism are provincial names; so are the words Episcopalianism, Presbyterianism, Methodism, Baptistism, Romanism. Christians in all these sections would admit that there are Christians in all other sections, Each is a species of the genus Christian. Genus is extensive. species is intensive; and in this, as in all other departments of classification, the genus is more important. In a logical definition of a thing, the genus is first given as indispensable in the thing which is about to be defined; to complete the definition you add the differentia to the genus. The differentia simply distinguishes the thing defined from other things which belong

to the very same genus. For a long time men's attention was riveted to the differences of the schools. Now Christians are coming to consider the things wherein they agree. The kingdom of God begins to appear, as in point of fact it really is, very much greater than any of its provinces, little or large. In the great Republic of United Theologies as in the Republic of the United States it would seem that zeal for States' Rights is being absorbed into enthusiasm for Nationalism.

Moreover, there seems to be a tendency to change the point of view of the Bible's teaching of the doctrines of redemption. Heretofore theologies seem to have started with the sovereignty of God. Everything was studied in reference to the throne of the King. Now studies are more given to the salvation of man as a starting-point. There is no tearing up of the track, for the Bible is still here. There is no change of the locomotive, for human reason is still here. But instead of starting from the station at the head of the valley and going down, theologians make their trains start out of the station at the foot of the valley. Evidently this does not change a single thing in the landscape, while it does give a new theology, but only in the sense of a new view of the same facts of God.

On the whole, the outlook of theology seems hopeful. The agitation which is frightening many people is a movement toward settling things in a very much better relative position on the old foundations. The Bible, as the infallible God's revelation of the infallible rule of faith and practice, is dearer and more potential than ever before. The twentieth century is approaching with the sword of the Spirit in each hand, with the smile of faith upon its lips, the glowing crown of hope upon its brow, and a suffusion of Heaven's love for earth overspreading its countenance. Men are coming to see that all the theology possible to man cannot make any man better, just as life cannot be produced by the best science, but that life may produce the best science, and that there is a religion which is love of God and love of man, the love which loves man for God's sake, and that in the sight of God and man one grain of such religion outweighs a hundred tons of theology.

CALVINISM AND ART.

[NOTE BY THE TRANSLATOR. REV. J. HENDRIK DE VRIES.—This critique on the Dutch school of poetry, from the Calvinistic point of view, will be found to be of general interest, since many points in it apply to poetry and poets everywhere. And regarding the two poets, whose works are reviewed more in detail, be it remembered that Jacob Cats has held for many years an undisputed hold upon the Holland people, as their poet, teacher and home-friend, whose works were found side by side with the family Bible upon the family board; and that Bilderdyk, of later date —who may be said to approach to the rank of a Milton —shows the possible development of poetic genius, when guided, but untrammelled by, the same Calvinistic tenets and influences.]

BY PROF. DR. ABRAHAM KUYPER, OF THE FREE UNIVERSITY, AMSTERDAM, HOLLAND.

[Continued from page 282 of CHRISTIAN THOUGHT.]

III.

THUS far I made no mention of the art of poetry, but deferred it to the latter part of my oration in order to refer again to the question of the Calvinistic style. Calvinism has no style of its own. It liberated art and offered it a new world, in which to work its charms and exercise an indirect influence upon its choice of material and mood, but it created no building, chiselling, painting and etching in a style of its own. This was done by Buddhism and Islam, the old Byzantium and the Rome of the middle ages, but not by Calvinism; and this places us before the question, whether this gap is a defect in Calvinism, and whether this want of a style of its own is a reproach.

And this question, we think, should be answered negatively. For with every great tendency in Church-life such a style of its own is always born from wedding art with the worship of God, and in the worship of the Eternal Being, Calvinism was ever averse to meddling with art. The sublime word of Jesus, "God is a spirit, and they that worship Him, must worship Him in spirit and in truth," had found a deep lodging in the heart of the

Calvinist, and impelled by the stimulus of this rare, ideal word, he took more and more delight in barest spirituality. This led at first to a hurtful extreme, and in Scotland and in some of our towns Calvinists began to take pleasure in the unsightly and the discordant. A blood-color suited best the pew in which they sat, and dissonance the song to which they listened; even an organ was not allowed in church. I do not wish to defend this exaggeration, which, with some at least, resulted from the reaction against Rome's overburdened temple-wealth; but I ask whether, for the standpoint itself, that in "the gathering of believers" there must glisten the beautiful of soul and not of sense, there hides no truth in Hegel's observation, that the less spiritual religious feeling is, the more powerfully it is charmed by the beauty of sense, while the more finely it is strung, it appears the less affected by that which is sensually beautiful. I do not ignore the right of existence to what is called Christian art, in antithesis to the art of the ancients, but I do deny that its baptism as art depends upon its ecclesiastical serviceableness. Art is Christian in a more serious sense when, abandoning "the antique-heathen" interpretation of man, nature and the supersensual, it allows its outlook upon life to be determined by Bethlehem and Golgotha, and borrows the motives for its ideal creations from the perspective opened up by Immanuel's resurrection and ascension. If, then, the imperishable merit remains unassailed, that Byzantium and the Rome of the middle ages withdrew art from pagan temptation in order to place it within temple-walls, under ecclesiastical tutelage, it is certainly no less a merit, if not a higher one, that Calvinism dared to declare art to be of age, and to send it out into the world in which to assert its independence in the struggle for life on its own responsibility. To have no art-style of its own was design, not merely for Calvinism, but for Protestantism in its broadest sense, by virtue of the spiritual emancipation of man, which established the Reformation. Even the effort to overhear, in the new world of sounds disclosed by Bach and Handel, a specific Protestant revelation-of-art I deem an utter failure. Of our musical supremacy, at least, which was still maintained throughout all Europe by a John Okeghem and a Josquin de Près, the very memory among

us vanished after the struggle with Spain. And the only realm of art, upon which, of necessity, Calvinism imprinted its stamp, was that in which the style of the individual art is almost entirely lost in the character-trait of the artist's individuality, I mean the art of poetry.

Among all his fellows, the poet alone is entirely free-born. Independent of nature and of the spirit of the times, if need be, he lives simply and alone, by the grace of God. From his own breast spring not only the form and tint and glow of his creations, but even the ore, with which he charms and from which he models his images, is nothing else than the wonderful language which, as a sublimate of impenetrable fineness, embodies the thinking of his people, and can therefore not be found by him in any other shape than veined with that which moves and teems in his own consciousness. To him, therefore, more than any other, was due the honor-name of poet, *i. e.*, ποιήτης, or creator; for with him it is almost literally the creation of beautiful things "from things that do not appear." A bringing forth of ore and form both from the depths of his inner self. That which moved the Calvinist had here to forge its own expression. And the more so in our land, where the international market was closed againt the poet, although open for every other artist. Our musical creations have caressed the spoiled eár of the Venetian and filled the arches of the Sistine Chapel with enchantment. England and America still pay fabulous prices for our etchings; all Europe aspires to the jewels of our art of painting; but they who have not mastered our Holland language know nothing of Vondel, and Bilderdyk's name is not even mentioned in the art histories of our age. The language enclosed Holland's poets within the national circle, and it could not be otherwise than that the contrast, which struggled in the bosom of that nation, should be voiced in poetry. Hence unity is lost, and the stream of poetry divides itself into many ramifications. Peacefully, as though tinted with silver, murmured its waters along the Muiderslot,* and in a golden sheen the prince †

* Muiderslot was the country seat of the historian Hooft, and both Vondel and Roemer-Vischer spent much of their time there.

† Vondel, 1587–1679.

of poets suffused its white-plumed waves by Amstel's borders. Differently sang the lark* his morning song in Hofwyck's shades, and differently again did the goldfinch whistle in Sorgvliet's lanes.† Brederoo was no Revius. Feith and Kinker are entirely different genii. And who has ever asked our contemporary, Da Costa, to sing in chorus with de Genestet, or Beets with Schaepman? and, if no equal can be named for Bilderdyk, neither before him nor after him, his priestly song was heard above the choir-boy's-chant of his days, with something besides the strength of his poetic genius, for his strength, too, lay hid in a poetic inspiration of his own. To be sure, as Calvinist, he was no Milton. The madness of a Robespierre even tempted him into illiberal thoughts; but he who lays the "Paradise Lost" side by side with Bilderdyk's unfinished epic, feels and grasps in that allied and mutually-completing material of Milton and Bilderdyk both, the unity of Calvinistic thought. Not by the direction of the branch, but by its oneness with the root the kind is tested; or am I mistaken when, in Revius as well as in Huyghens, from Bilderdyk's epic no less than from Milton's proud song, I feel ever yet the vibrations in the soul of that self-same thunder of the free sovereignty of God which the "Beggars-of-the-Sea" caused to break lose upon Antwerp when they sang:

> Tyre had never done such wickedness as thine, yet in the deep God sank it.
> And terrible Sidon never made cruel wine of Christian blood and drank it.
> So God shall drive thee into the abyss.

But what, when, next to Huyghens and Revius, the playful singer of the Trouringh, Jacob Cats,‡ demands a hearing? Did not father Cats weave a fancy for Bogerman's Synod? And was not the theological damask, on which the grand-pensionary stitched his symbolic figures, irreproachably reformed? Undoubtedly so, and it would be unhistoric as well as unfair if, preferring Bilderdyk, we would refuse to honor the poet in Jacob Cats. For he founded a school of poetry which was likewise a

* Huyghens.

† Sorgvliet was the country seat of Jacob Cats.

‡ Jacob Cats (1577–1660), author of the Trouringh (a series of romantic stories relating to remarkable marriages), was grand-pensionary of Holland at one time.

school of Calvinistic art. Indeed, Cats and Bilderdyk are our chief Calvinistic poets ; and while all fame has died away from the name of Revius, and for the great mass Huyghens' "Florets" have long since withered, Cats and Bilderdyk live among our Calvinistic people as figures that still speak. We speak not unadvisedly, for no fanatic veneration can ever tempt the Calvinist to excuse in Cats the lack of a richer ideal, or in Bilderdyk the rhythmic "mutter" of fretful old age. And none of us think of palliating the misdeeds of Cats in early life, or of Bilderdyk,* in re-marrying, out of love for their, to us, so precious names. The peculiarity of the Calvinist is this, that he palliates not even the misconduct of the faith-heroes of the Scriptures. In the choicest of the choice spirits we persist in calling sin by its proper name of sin, and all that our love honors in them is the artistic talent and the grace of our God. But why say more on this point? For the close of my oration invites your attention, not to the persons of these singers, but solely to their artistic talent in connection with Calvinism ; and from this standpoint, I confess it freely, I hold Jacob Cats in high esteem.

I know well that not many cherish this high opinion. To speak with Busken Huet, there have always been reluctant critics who "behold in this god-fearing money-maker the incarnation of the Netherland demon"; but since Busken Huet, and before him Potgieter and Van Vloten, took back this unreasonable verdict, public opinion also has changed more and more, and a reasonable appreciation of the Catsian genius is no longer considered an offence against æsthetic taste. How could this be otherwise, when Bilderdyk himself, unequalled as a judge of art, from Brunswick sang to him:

> O Cats, thou poet, greater far than all the throng
> Who have despised thee, unto thee the thanks belong
> Of endless generations: and whoever scorns
> The crown of honor which thy well-loved head adorns,
> 'Tis unto thee I owe what laurels I have gained
> At Pindus' foot !

I speak not of the way in which the song, from which these lines are quoted, has been satirized; but I ask you to observe

* Bilderdyk (1756–1831) married a second time before he was divorced from his first wife.

that Bilderdyk recognizes his descent from Cats as poet, and pictures it in his song.

The muse of Sorgvliet * borrowed the colors of her pallet from the poetry of the symbol. By the power of symbolic beauty the world about us must fuse with the world within us, and to this unit, now grasped as such and penetrated, and as a living thing addressing us, must we listen for the holy song of love, in every melody, from every harmony, in its highest and deepest tones. Jacob Cats was a poet because he included the whole creation, and the life-drama displayed in it, in a single poetic embrace.

Here Bilderdyk's testimony:

> Oh Cats, toward what delights I strained
> My insatiate heart, when the poet's Universe
> Was first unlocked by thee! The older forms disperse
> And the whole world assumes for me a being new,
> Surcharged with mystic meaning, as through thee I view
> Its various relations: all comes home to me,
> Illumining my inmost self, my tendency,
> And passion, till my sweetest, only purpose turns
> To strengthening all power of thought which in me burns.
> All power of will—for so thine image of what is
> Displays myself before my wondering eyes; by this
> The complex body grows the figure unto me
> Of the unbodied Ego. From that hour I see
> How I've been drawn with steady force away from Earth.

Thus, from the Catsian poetry, the whole world about and within us addressed itself to Bilderdyk in a living and animated monism, which monism did not make him withdraw within himself in stoic pride, but led him, as he further sang,

> Toward Him, in whom I found all Being pictured forth,
> And mine own self: the Source and Origin of all
> In everything expressed, discerned in great and small.
> . . . . . .
> Who for His own good purposes established me,
> But a mere atom in His vast creation, here
> In the place appointed when He formed the world.

And this world, which had become symbolically one, and was filled with the breath of the Almighty, was now rendered,

* Jacob Cats.

by the poetic genius of Cats, aglow with the all-stimulating, impelling, animating and consuming fires of love.

> I see
> More clearly how all creatures by one vital glow
> Are permeate, and filled with living fires, which throw
> Their flaming life upon all else; and Man's whole race
> I see before me standing, like a single tree,
> With arms stretched wide to cover and protect. I see
> Vein within vein, an animal system, flowing free
> With purest blessings, so that every element
> Rejoices, each in another, with a great content.
> Through all these spreads the fire of love's own holiness,
> Filling the Universe with the unthought blessedness
> Which she pours out. I see her glistening flames flash wide,
> Throughout creation's limits, and in me abide,
> As a point of sparkling glow within the breast,
> Enkindled by the breath of life, and, as in quest
> Of proper fuel, moving about within my heart,
> So that I feel its warmth.

Did Bilderdyk, for the sake of this spiritual affiliation with Cats, throw away the honor of his own poetic genius, or the coat-of-arms of his own poetic aristocracy, for the sake of burning incense unto Cats? By no means. Though one with Cats in the poetic key-note, he was, nevertheless, fully self-conscious of his higher rank, which far exceeded Cats's. Indeed, from its ashes the Phœnix of that poetry, once dead, rose in his song, but with more splendor of plumage and more melody of rhythm. That which Cats sang in simple tones was, as he tells us, great delight to him, because,

> In grander style and manner might I follow on
> By thee instructed how to limn the soul: my art,
> Adding her strength to thy firm touch, should run beyond
> Thy vision in a higher flight, her counterpart
> Finding in thine, brave Virgil, and in thee discern
> Her Ennius, her Master: thus there might return
> A living spirit to thy drawings, with the rich hues
> Which I should lend them, and my swifter strength infuse
> Thy tranquil flow. Oh Cats, what flattering joys I knew
> When from thy scenes I learned to borrow something true,
> To thy correctness giving newer grace, that so
> The whole was held in high esteem by men who owe
> True homage to the art of poetry.

Is there no glitter in these praises beyond that of inspired tin-

sel? Is it mere exaggeration from one who always exaggerates when he sings, addressing Cats,

My first and choicest laurels unto thee belong? *

There are many who think so, but as Calvinist—and perhaps the Calvinist alone, psychologically, and by sympathy of spirit, is able to scan the inner contents of Bilderdyk's utterances—as Calvinist, I do not think so. Exaggeration, as we frankly admit, strained the song somewhat too greatly; but underneath the exaggeration hides the language of genius, geneologically discovered to itself. Much more passed over from Cats's "Loitering Rhymes," as they are called, into Bilderdyk's glowing poetry than is commonly supposed. Do not forget that from the caterpillar the butterfly emerges; in the life-germ caterpillar and butterfly are one.

I admit that after the giant-struggle with Spain and Rome both, you might have expected from the Calvinist a mighty epic, a lyric of the emancipation, a drama as deep-cut in its characters as those of Shakespeare. But he who argues like that does not reckon with our national character. A true Hollander is afraid of the water, and makes one indignant with his hesitancy to risk the leap, but when once in it, he swims as a rat. But also, when from the water he has come back to dry land, he scarcely as much as remembers the stream be beat so recently with the strong muscles of his arm. Our phlegmatic character speaks in this, and after the truce nothing surprises you so greatly as the rapidity with which our people turned the sword into a spade and the pike into a sickle. There is almost no transition period. Hence, when at the close of the last century Calvinism was endangered, Bilderdyk loudly raised the battle-cry. While in the midst of Calvinism triumphant, Cats sang of firesides and of home-altars. Beholding in their own battle, truly poet-like, the continuance and the repetition of the struggles of the Old and New Covenant, our fathers found their epic composed and finished in the annals of old Israel; the exaltation of the lyric in David's psalmody; and their drama in the faith-struggles of the cloud of witnesses. And what the people asked for, and Cats gave, was no

* For the poetic form of the above lines we are indebted to the courtesy of A. E. Thayer, M.D., of New York city.

boastful panegyric of a glory of their own, but a poetic exultation in the life of peace and of home happiness which had been cast in our lap, as the fruit of our struggles, by the God of our battles.

Upon this life our masters of the pencil threw themselves, and so did Cats. With his poetic microscope he viewed it in every part, and espied its innermost composition. And in the soft glow of divine mercy Cats displayed the costly treasure of the soul-wealth of the home.

There are two sides to the confession of the sovereignty of God. From the one side it casts us in the dust before the majesty of the Lord our God, who executes His design and council in the face of the struggles of the elements, of principles and of spirits; but on the other hand, lest your predestination become fatalism, it calls you to observe the penetration of that selfsame majesty in all the swelling life of nature and of man, extending even to that which is small and seemingly of least significance. For thereby only is dualism banished and the sovereignty of God righted in all the compass of our human life. God, sovereign in the extraordinary, which otherwise would terrify you, but sovereign also in the ordinary life, which, but for this higher consecration, would weary you unto death.

Well, then, Cats finds his countrymen returned from exile and the field of battle to the home and hut, returned from the uncommon to the ordinary life, and now he discovers a significance in everything that pulsates and stirs in the course of everyday existence. As Calvinist, not only man, but woman also is full of interest to him, as well as the child and the maid. Interesting is every occupation and trade and calling, the study, and the office, the kitchen and the nursery. Interesting is every act of that rich drama which by day and by night is being played within the four walls of our Holland home. Full of poetic sense, he grasps this interesting world in its mighty motive of the matrimonial life, and tuning his lyre to this theme of wonderful wedlock, he ranges about this centre the whole of human life. Yes, from this one centre of woman's and man's uniting love he lengthens the sparkling ray into the life of plant and animal, of shell and magnet-needle. Blooming in love upon

the woof of his symbolism, all nature, and history too, is brought into the home of the Calvinist by Cats, the minstrel of love. And when by these means the poetic enchantment has been effected, insensibly this wealth of earthly love glides along threads of gold, into the mysteries of spiritual wedlock ; the marriage in city and hamlet becomes symbol of the marriage Christ will one day celebrate with His Church, and this abounding brightness, which dips life in the cottage and in hut, as in a silver sheen, is felt by master and by servant as beaming down on them from the love-life of the Triune God. The priest of faith at the great altar was no longer to the Calvinist the chief figure in the drama of life, but the believer himself at the altar of the home. And to make that life of the family to shine forth in its inexhaustible riches ; whatever stiffness there was in it, to make pliable, and warmer; what was growing numb with cold, and what was sinful in it, purer ; and then to let another magic light than that of the fire-side play upon the cozy, busy life about the home-altar—this is what Cats, in his endless variations, yet ever concentrating all his strength upon this one purpose, undertook for the benefit of our people.

If you object to this, that this good, talkative fellow, who in his dressing-gown walked through his salad-beds, accomplished the above in a style altogether too paternal, in language too plain, often indelicate, within a hair's-breadth of unchastity, and in too moralizing a strain, I readily concur with you. Always confining himself to the ordinary life has rendered Cats's moral too common and, for this very reason not infrequently, immoral. There are sparks aglow in his love-scenes to which not all flax can be trusted. Undoubtedly Cats, too, in his declining days, has sometimes rhymed and raved, to the wearying of the ear. Cats has always been too autocratic by far. And the language damask and crystals of a Vondel and a Bilderdyk have never sparkled in the light of the candelabra upon his burgher-board.

But you must not make this list of grievances too long. The tints from Vondel's pallet would not have suited the scenes which Cats presents. He must needs model his images from terra-cotta, and not from marble. To his lower genre belongs a lesser sort of language. But over this ordinary language he exercised

undisputed mastership; he kneaded it with such artistic cleverness, and sang from it so tunefully and sweetly, that if our ear is not caressed by his speech, the fault lies in our misappreciation of language. You know full well that Cats's love-poems in the sixteenth century did not spoil our domestic morals, but the French novels of the seventeenth century; and upon the point of your sexual grievance, the fact that as long as Cats was read in our land, the purity of our domestic morals vied for the palm of honor with the cleanness of our copper-ware and the snowy whiteness of the marble of our halls, is sufficient apology for him. Sometimes he has raved, but has Bilderdyk never rhymed? And who acquits Vondel of this, or Goethe, or even Schiller? And if you still maintain that the drop of poison of other poets became a cupful with Cats, I ask in turn, whether indeed his domestic muse could speak in other than a domestic language; and whether the fathers of those days were not tedious and prolix in their letters, addresses and even in their sermons. Their phlegmatic character made them always argumentative, and for this they took their time. And as regards his grandfatherly style, you find it in every language and with all gnomic poetry. As "elders in the gate" they gather the people about them, or as a fatherly friend they lift the latch of your door, to offer you all the benefit of their opinions and experience. In a sense they address you as messengers fro higher spheres, and Cats's symbols were to many a continuation of Solomon's proverbs.

And therefore I claim the honor for Cats of having been a real poet, a poet by God's grace, and among the poets he was of less exalted genre, but in that genre his was the highest rank. They cannot appreciate this who, in idealistic excess of excitement, or in enchantment of gilding and rhythmical varnish, take offence at the Catsian simplicity. But if you know what it means to grasp in one poetic thought all the life of heaven and earth, of nature and of man; to enter into that one thought and animate it with all the glow of your heart and talent of your genius; to aspire unto the fame, and to achieve it, of bringing, full of animation and yet soberly, the consuming and ennobling beauty of that thought within the reach of old and young, of country-man and burgher, yes, under the eye and in the ear of a whole people,

and of such a people as ours then was—then I am sure of your approval when I name our Cats's inheritance not merely "a bundle of verses," but a world of poetry.

This is the way in which our people, in its better days, have always recognized it. Cats achieved what neither Vondel nor Bilderdyk could have done—he has become the people's poet, the man of the people, the home-friend of the nation. Among no people has a match been found for Cats's popularity. Only in the last century, when the pith of our people had been consumed and its elasticity weakened, was this grateful veneration turned into self-conceited disdain. And no sooner was the man of gigantic powers quickened in a Bilderdyk, who hurled his anathema against this national humiliation of self, than Cats's fame was revived, and in the tracks of Bilderdyk, if it were with some reluctance, the poetic and poetry-loving public of a younger generation has again honored the poet in Jacob Cats.

I count not the blessing small that has come to our Calvinistic people from its poetic vein. No one did better than Cats to banish from our midst Anabaptist dualism and Methodistic pedantism. About the somewhat sternly-closed mouth of the Calvinist Cats often caused a healthy laugh to play. In a style, not too exalted, poetry has been brought by him into circles which otherwise would have remained weaned from all æsthetic development. He encouraged observation and stimulated thought, and with old and young begot the liking for intuitive wisdom. To the wonderful home-life, from which he stole his motives and tints, he has returned the spoils with usury. And in his jests and jokes, in his images and gnomes, the heavens to him are always open, and he sings in the ear of the Knower of our heart.

And do you ask—in order, before closing, to place Cats and Bilderdyk together once again—whether Bilderdyk does not stand incomparably higher, as one with whom Cats can scarcely be named in one breath, then, yes; in Bilderdyk there sparkles a strength of genius, a wealth of language and of rhythm, of comprehensiveness and splendor, which quite overshadow Cats. With the one it is the mountain stream which carries you along, with the other, a moderate flow, where an oar has its use. Only

admit that by this calmer simplicity, by this self-limitation and concentration of the whole soul upon one single thought of life, Cats introduces a grateful quiet, and therefore, a clearness and a natural life-warmth into his poetic world which Bilderdyk could never achieve.

The difference between Cats and Bilderdyk is not that the one was merely a rhymer and the other a Calvinist. Both were Calvinistic poets of the first order, and founders each of a school of poetry, his own. The difference is this, that everything Cats sang was democratic in tone and type, while in Bilderdyk shone all the strength, while the shadow too appeared, of the aristocratic spirit. Put now the two together, and you may well boast of your riches. Bilderdyk will never become popular, nor will Cats ever furnish the seasoned food the nobility of our times call for. Neither in the realm of æsthetics can the difference between aristocracy and democracy be ignored. The liking and tendency of each take directions of their own, and therefore their tastes demand different satisfaction. There are plateaux and mountain tops also, among the race of the children of men. Both are watered from the one cloud, each in its own way. And our Calvinistic development will become elastic within this territory, only when our statesmen and jurists, our clergy and physicians, in short all our men and women of the higher nobility of spirit, allow again the *καθάρσις* of the beautiful from Bilderdyk, to work its liberating effect upon their consciousness, and when our tradesmen and mechanics, our industrious burghers with our faithful tillers of the soil, the old and young alike, will bravely dip once more all of our human life in the soft glow, I say not of Cats, but of a Catsian poetry.

MONTHLY MEETINGS.

By the Secretaries.

April.—At the Monthly Meeting of the Institute held on the evening of April 5th, 1892, in Columbia College, the President being in the chair, Rev. Henry A. Dows, of New Rochelle, conducted the devotional exercises. After the reading and approval of the minutes of the last meeting the following list of new members was announced:

John Burrows, A.M., D.D., Chester, N. Y.; Rev. Wm. F. Blackman, A.B., B.D., Ithaca, N. Y.; Rev. C. H. McAnney, A.B., Tarrytown, N. Y.; T. P. Bailey, Jr., Ph.D., Columbia, S. C.

The President announced that he had received contributions from Mr. Lemuel W. Serrell, Plainfield, N. J., and Prof. Harry Deems, Baltimore, Md., for the circulation of the Institute's literature in Japan.

Professor Langdon S. Thompson, P.D., of Jersey City, read a paper on "The Relation of Religion and Art." The discussion following the lecture was conducted by Prof. Edward J. Hamilton and Rev. Henry A. Dows. A vote of thanks was presented to Prof. Thompson and a copy of his paper requested for publication in CHRISTIAN THOUGHT.

May.—The regular Monthly Meeting was held May 3d, in Columbia College, President Deems being in the chair. Rev. Dr. F. C. H. Wendel, of Wells, Minn., conducted the devotional exercises. After the approval of the minutes, the following names of new members were announced:

Rev. E. K. Mitchell, A.M., B.D., Professor Graeco-Roman and Eastern Church History, Hartford Theological Seminary, Hartford, Conn.; Stephen G. Barnes, Ph.D., Litt.D., Author of "The Spiritual in Art and Literature," Hartford, Conn.; William W. Mills, A.B., President of the First National Bank, Marietta, Ohio; Prof. Charles A. Bennett, B.S., Professor of Mechanic Arts, New York College for the Training of Teachers, Montclair, N. J.; Prof. Langdon S. Thompson, Jersey City; John C. Mitchell, New York; Antoinette C. Devereux (Mrs. John H.), Cleveland, Ohio; Mrs. George D. Phelps, New York.

The regular paper of the evening was by Rev. J. H. Edwards, of New York, on "Evolution and Free Will." At the close of the lecture, a letter on the subject from Dr. M. A. Starr, of New York, who was unable to be present, was read by Secretary Devins. The discussion was further carried on by Dr. Gregory and the President.

The thanks of the Institute were presented to the author of the paper, and a copy requested for CHRISTIAN THOUGHT.

☞ The crowded state of our pages this issue compels the postponement of book-notices already in type, with other matter, which will duly appear in next number.

ANNUAL LIST OF MEMBERS OF THE AMERICAN INSTITUTE OF CHRISTIAN PHILOSOPHY.

[CORRECTED TO JUNE IST, 1892.]

☞ There are no Honorary Members.

VERY IMPORTANT.—As our publications are mailed free to all our members, it is important that we be promptly informed of changes of address to save trouble and expense.

Any errors in this list of initials, degrees or addresses will be cheerfully corrected with thanks to those who report them.

All names are retained on the books of the Institute until notification of discontinuance. The bills for membership dues are sent to each member annually. In the meantime our publications are forwarded, and members are expected to pay all arrears which may have accrued *up to date of discontinuance.*

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[This list embraces the names of those who have contributed $500 or more to the Endowment Fund. They are *Life Members.*]

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